DEPTH AND VOLUME OF STRATA IN THE MUSKOKA–HALIBURTON STUDY LAKES (1976–1982)

R. Girard, B. Locke and R.A. Reid

DATA REPORT DR 83/10

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DATA REPORT SERIES

The data presented in this report were collected by staff of the Water Resources Branch of the Ontario Ministry of the Environment as part of the Lakeshore Capacity Study or the Acid Precipitation in Ontario Study. This unreviewed report does not necessarily reflect the views or opinions of the Ontario Ministry of the Environment

DEPTH AND VOLUME OF STRATA IN THE MUSKOKA-HALIBURTON STUDY LAKES (1976-1982)

R. Girard, B. Locke and R.A. Reid
Limnology Section
Water Resources Branch
Ontario Ministry of the Environment
P.O. Box 39, Dorset, Ontario
POA 1EO

DATA REPORT DR 83/10

ANVN

PREFACE

The unpublished Data Report Series is intended as a readily available source of basic data collected for lakes and watersheds in the Muskoka-Haliburton area of Ontario. These data were collected as part of the Lakeshore Capacity Study and/or the Acid Precipitation in Ontario Study.

The limnological portion of the Lakeshore Capacity Study (1975-81) was initiated to investigate the relationships between lakeshore development and lake trophic status in low ionic strength Precambrian lakes. The Acid Precipitation in Ontario Study (1979-present) was initiated, in part, to investigate the effects of the deposition of strong acids on aquatic and terrestrial ecosystems in Ontario. The primary findings of these studies have been and will continue to be published as reviewed papers and technical reports.

ABSTRACT

Depth (m) and volumes (10^5 m^3) of strata are presented for the lakes studied as part of the Lakeshore Capacity Study and the Acid Precipitation in Ontario Study.

R. Girard, B. Locke and R.A. Reid. Depth and Volume of strata in the Muskoka-Haliburton Study Lakes (1976-1982). Ont. Min. Envir. Data Report 83/10.

Introduction

Water temperature was measured at 1 m intervals to lake bottom, (0.5 m intervals through the metalimnion), with a Montedoro-Whitney Model TC-5C thermistor. The depths of the epilimnion, metalimnion and hypolimnion were calculated from a temperature vs depth plot (Wetzel 1975).

The methodology used to prepare maps and calculate morphometric parameters is outlined by Scheider et al. (1983) and Nicolls et al. (1983). Calculations of volume of strata are defined by Hutchinson (1957).

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Wetzel, R.G. 1975. Limnology. W.B. Saunders Co., Toronto. 743p.

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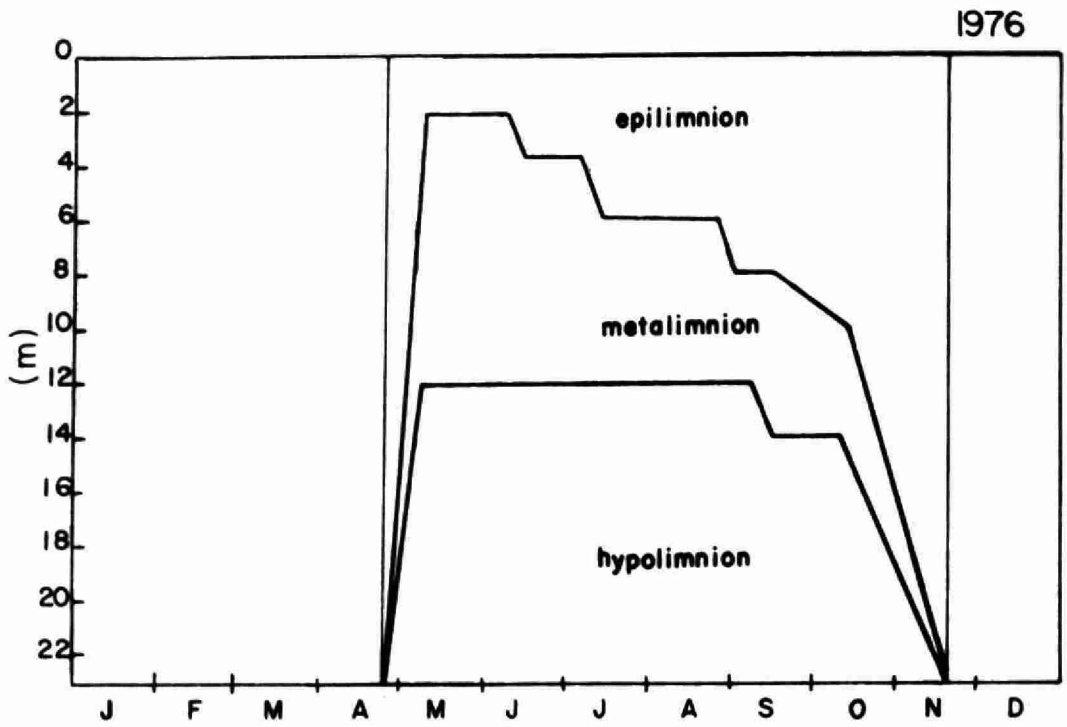
FIGURE 1

BLUE CHALK LAKE - DEPTH OF STRATA



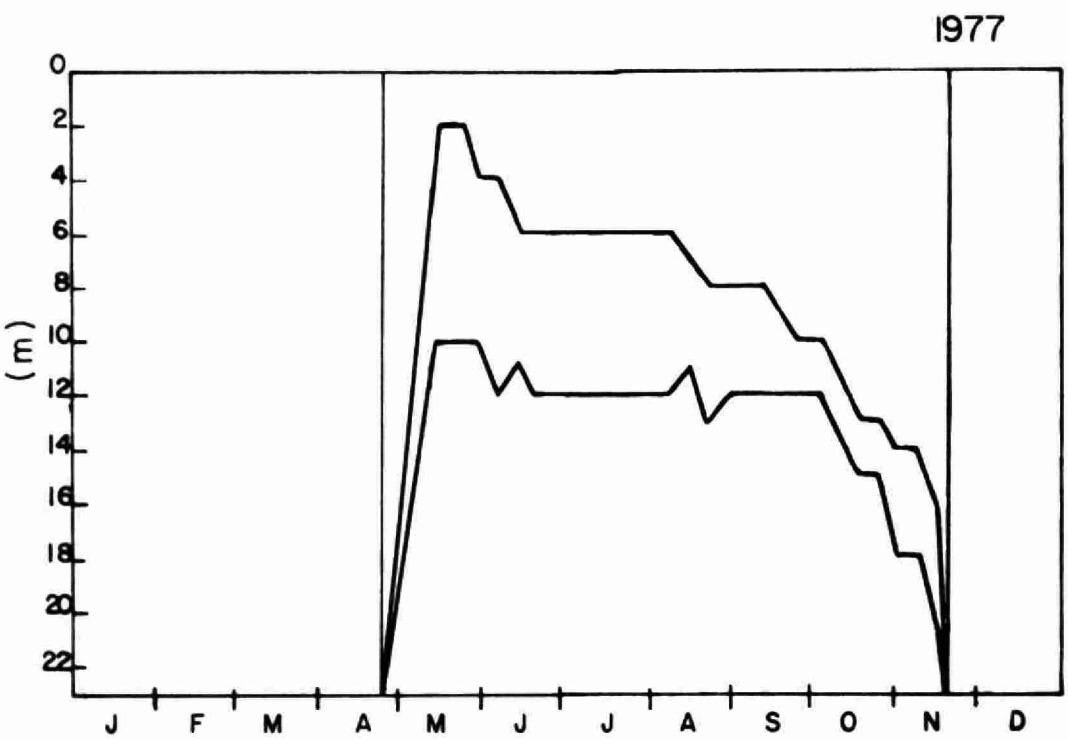


FIGURE 2

BLUE CHALK LAKE - VOLUME OF STRATA

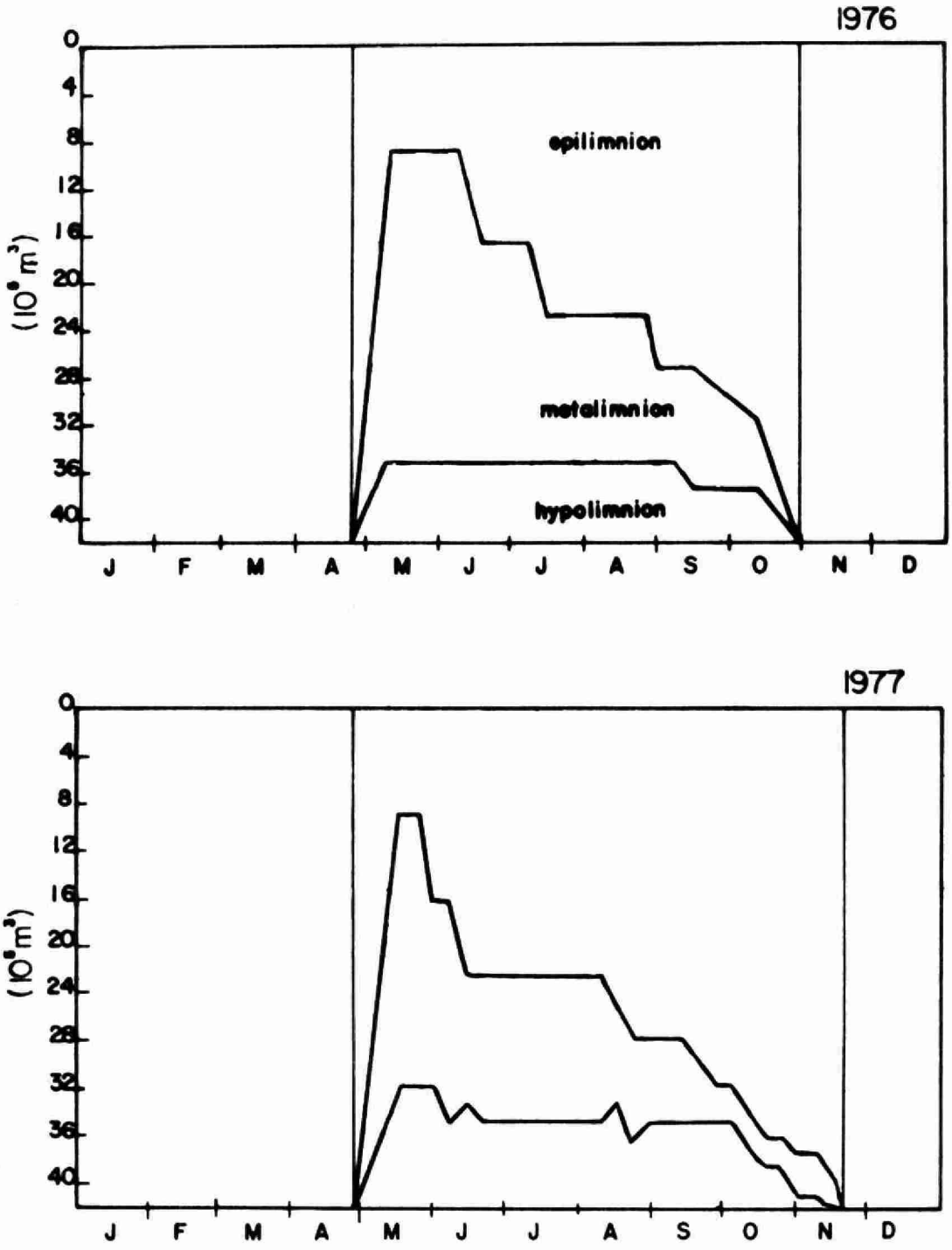
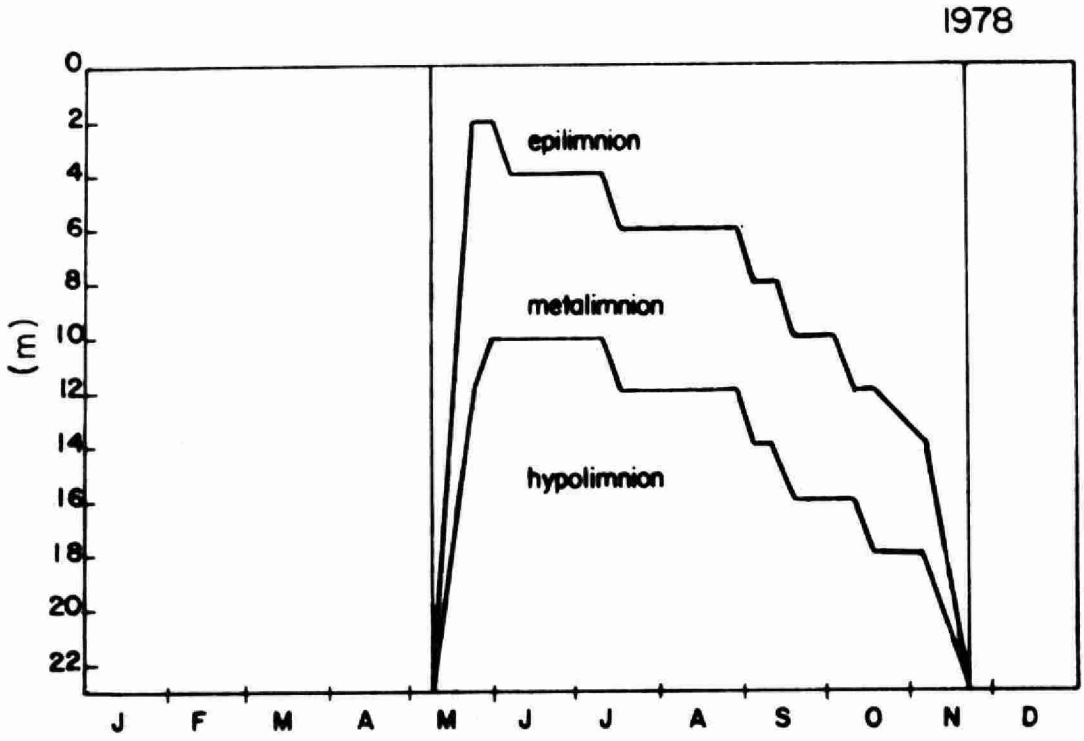


FIGURE 3

BLUE CHALK LAKE - DEPTH OF STRATA



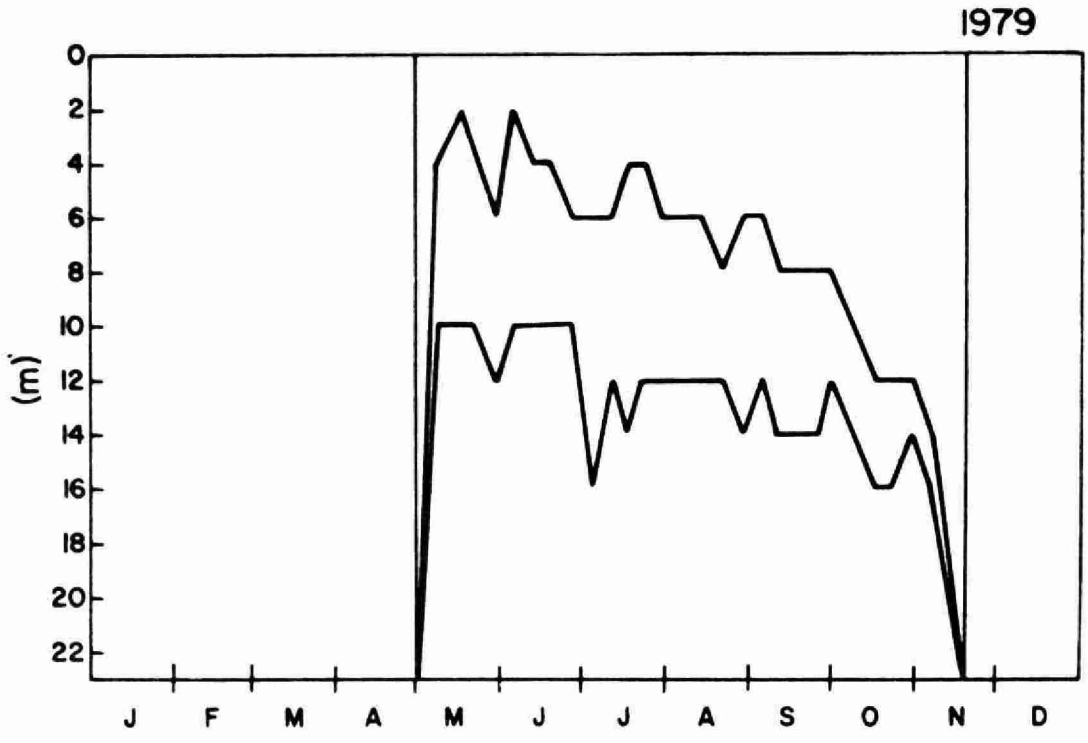


FIGURE 4

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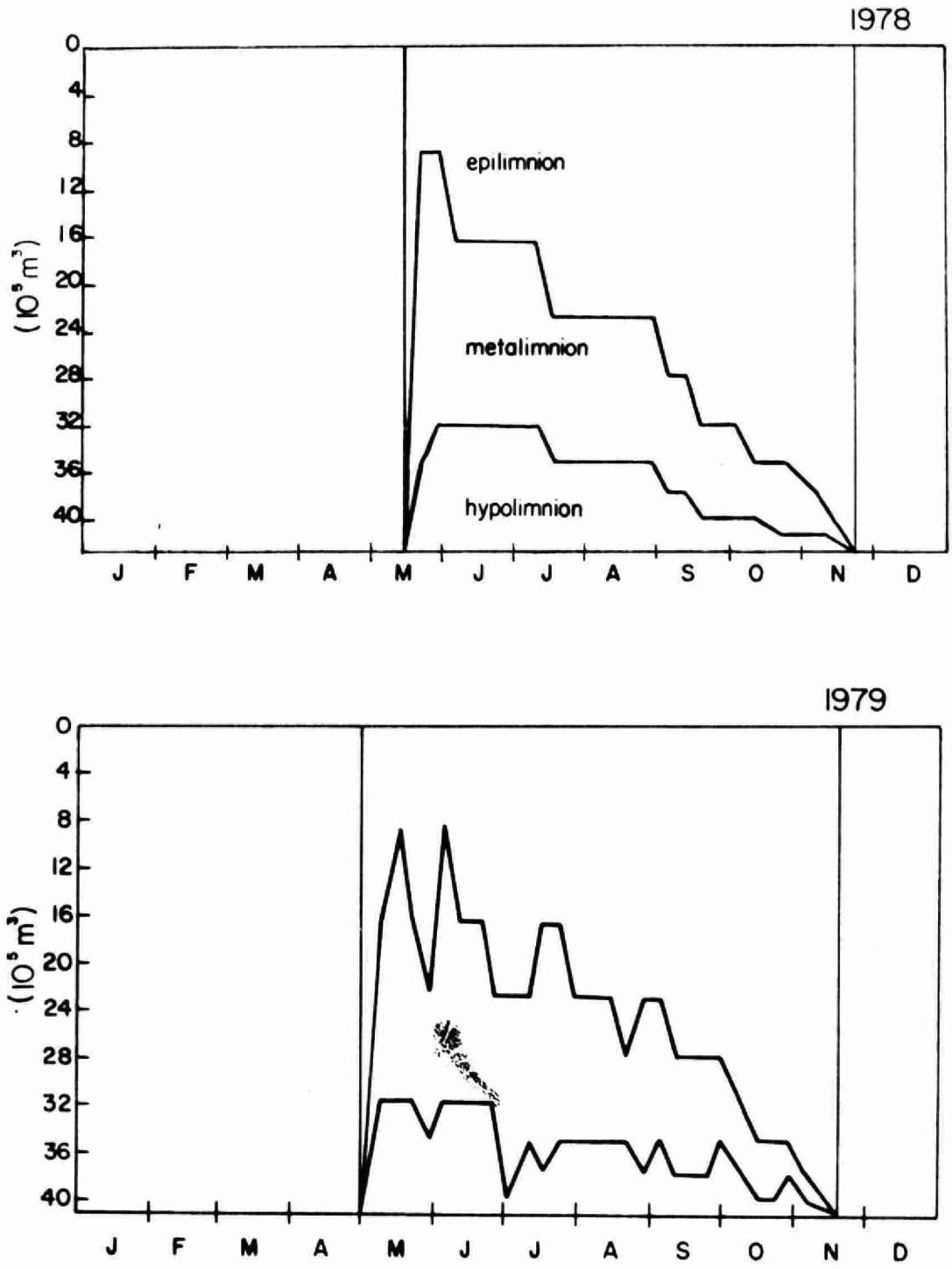

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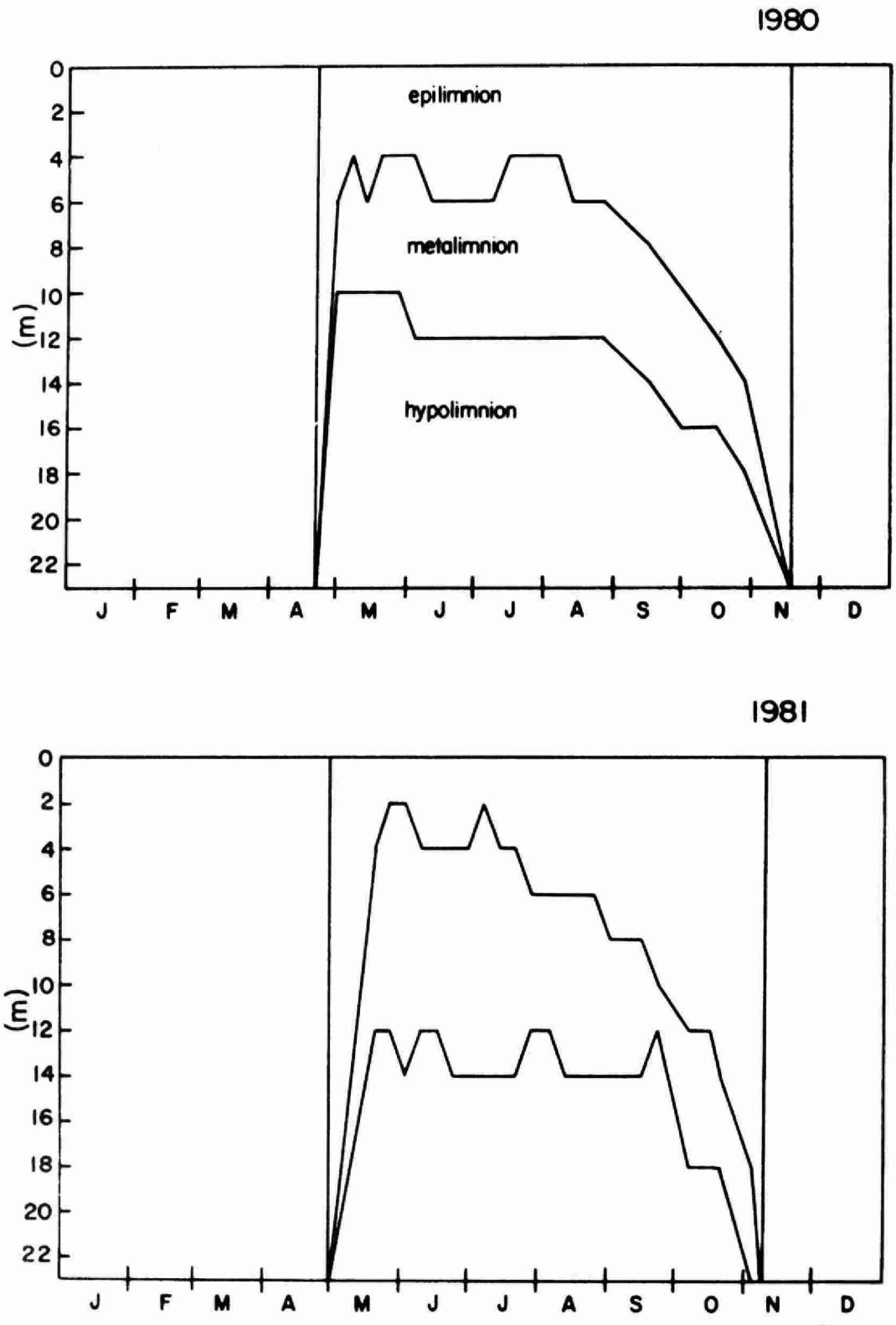
BLUE CHALK LAKE - DEPTH OF STRATA



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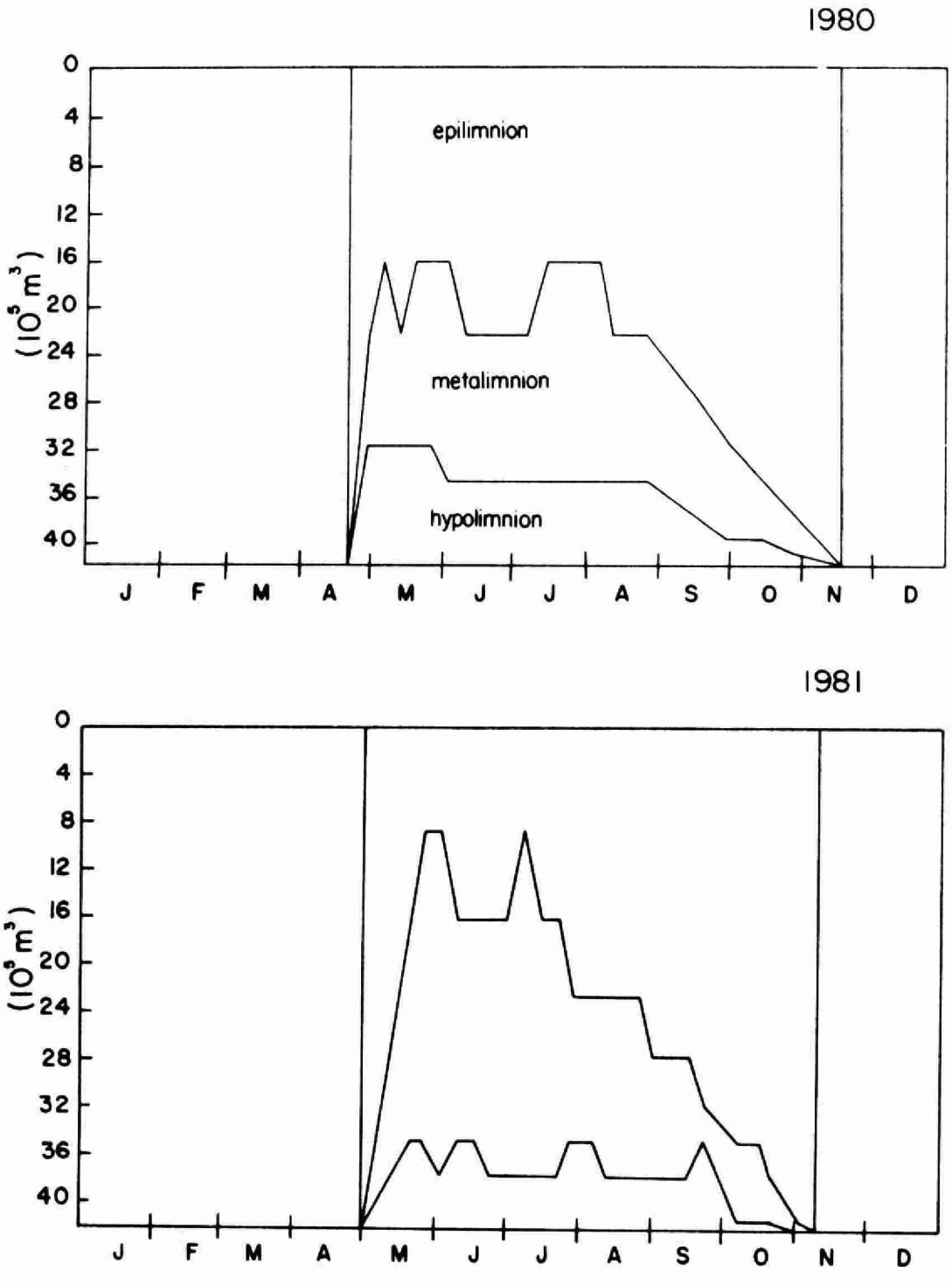

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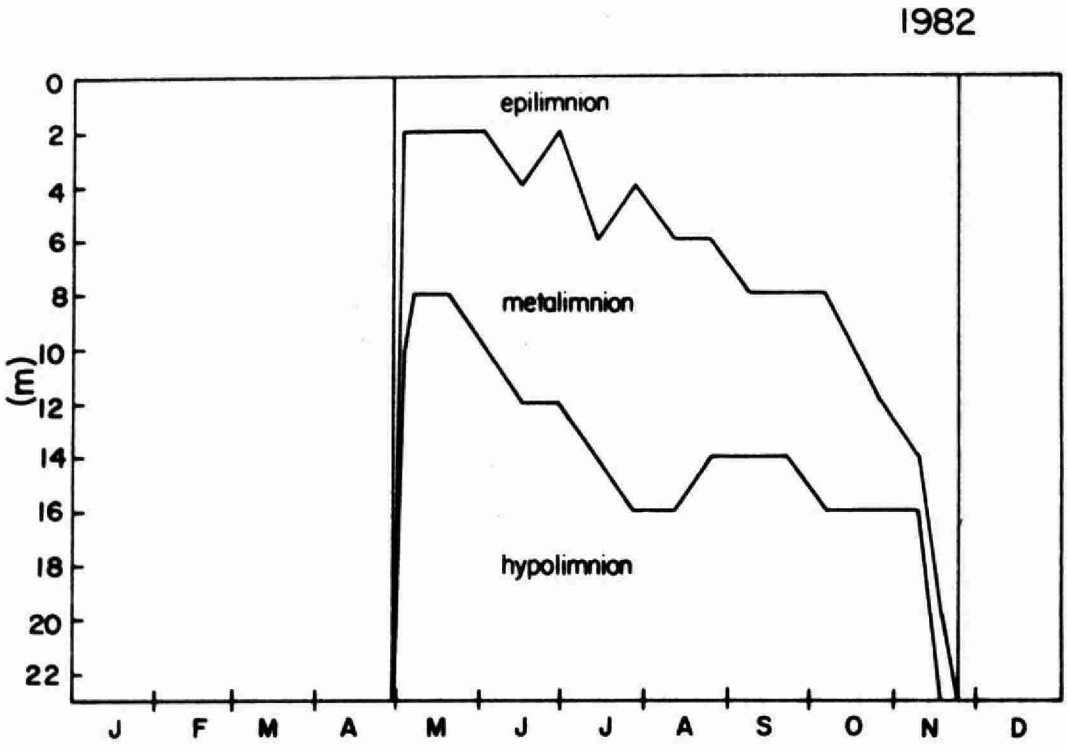


FIGURE 8

BLUE CHALK LAKE - VOLUME OF STRATA

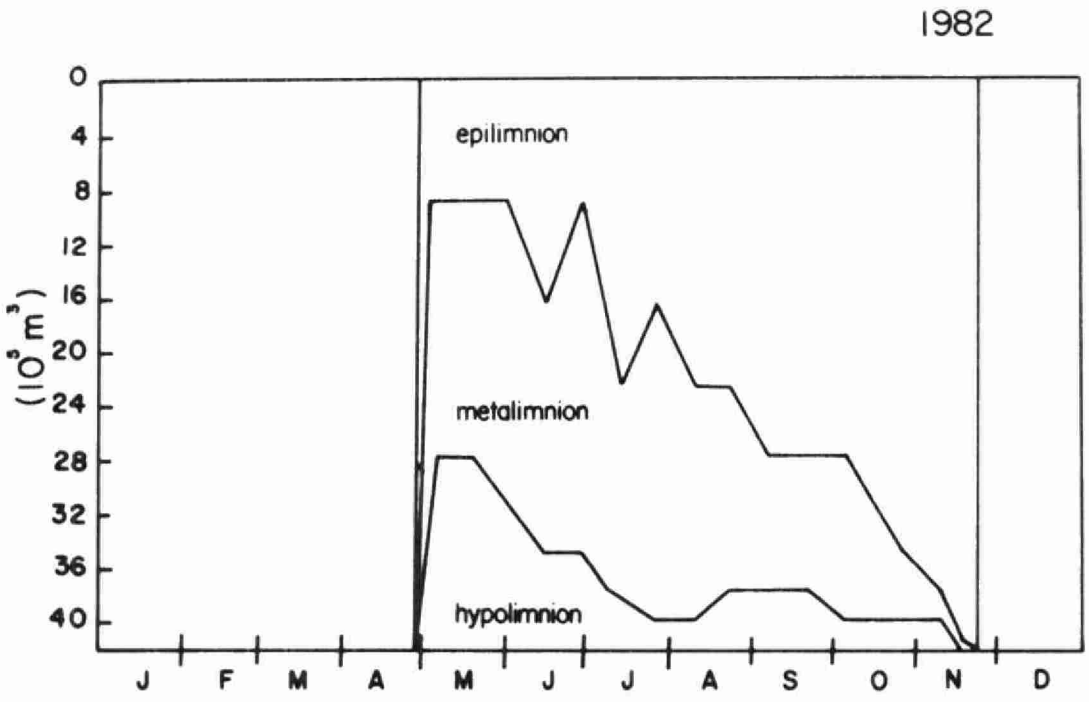
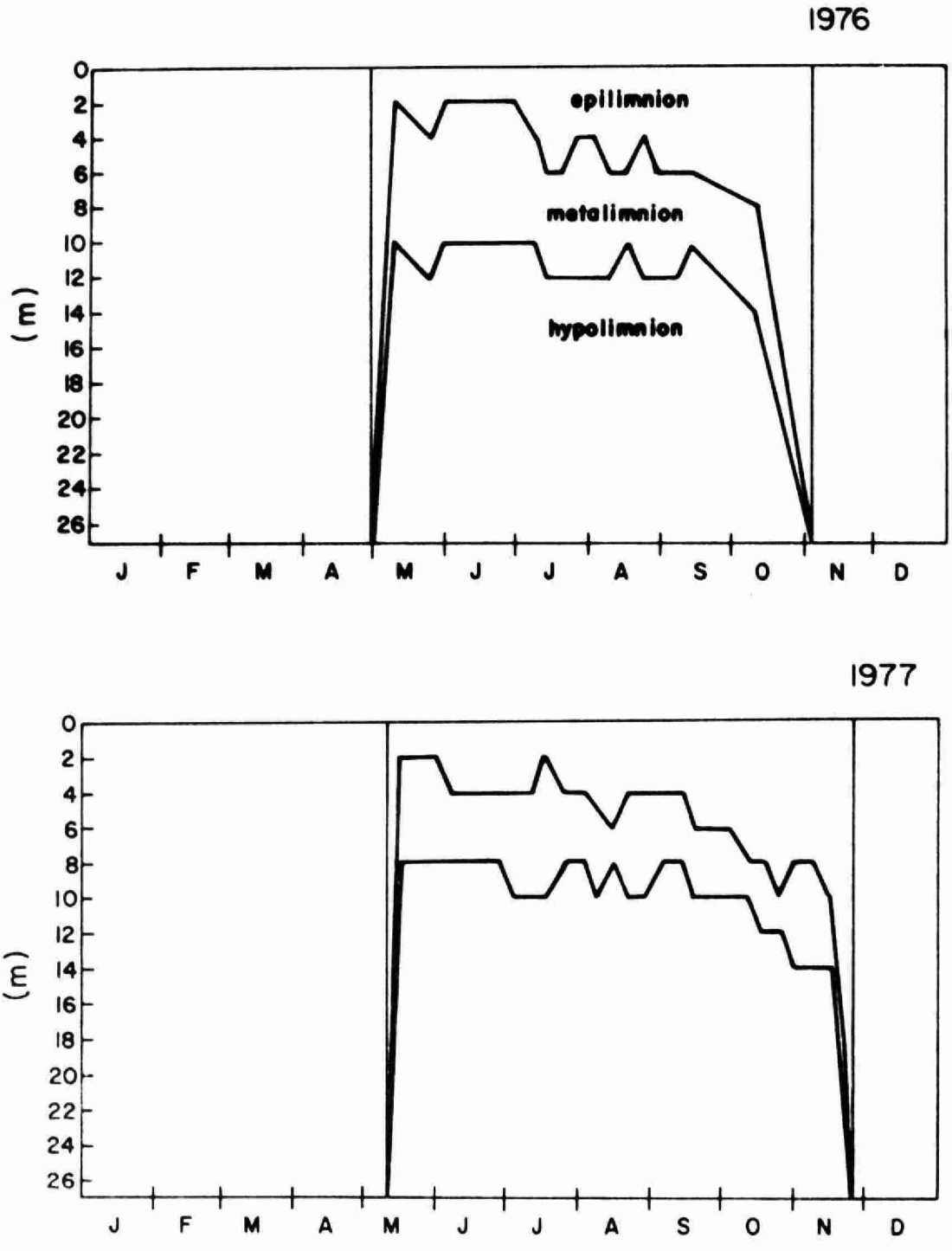


FIGURE 9

CHUB LAKE - DEPTH OF STRATA



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CHUB LAKE - VOLUME OF STRATA

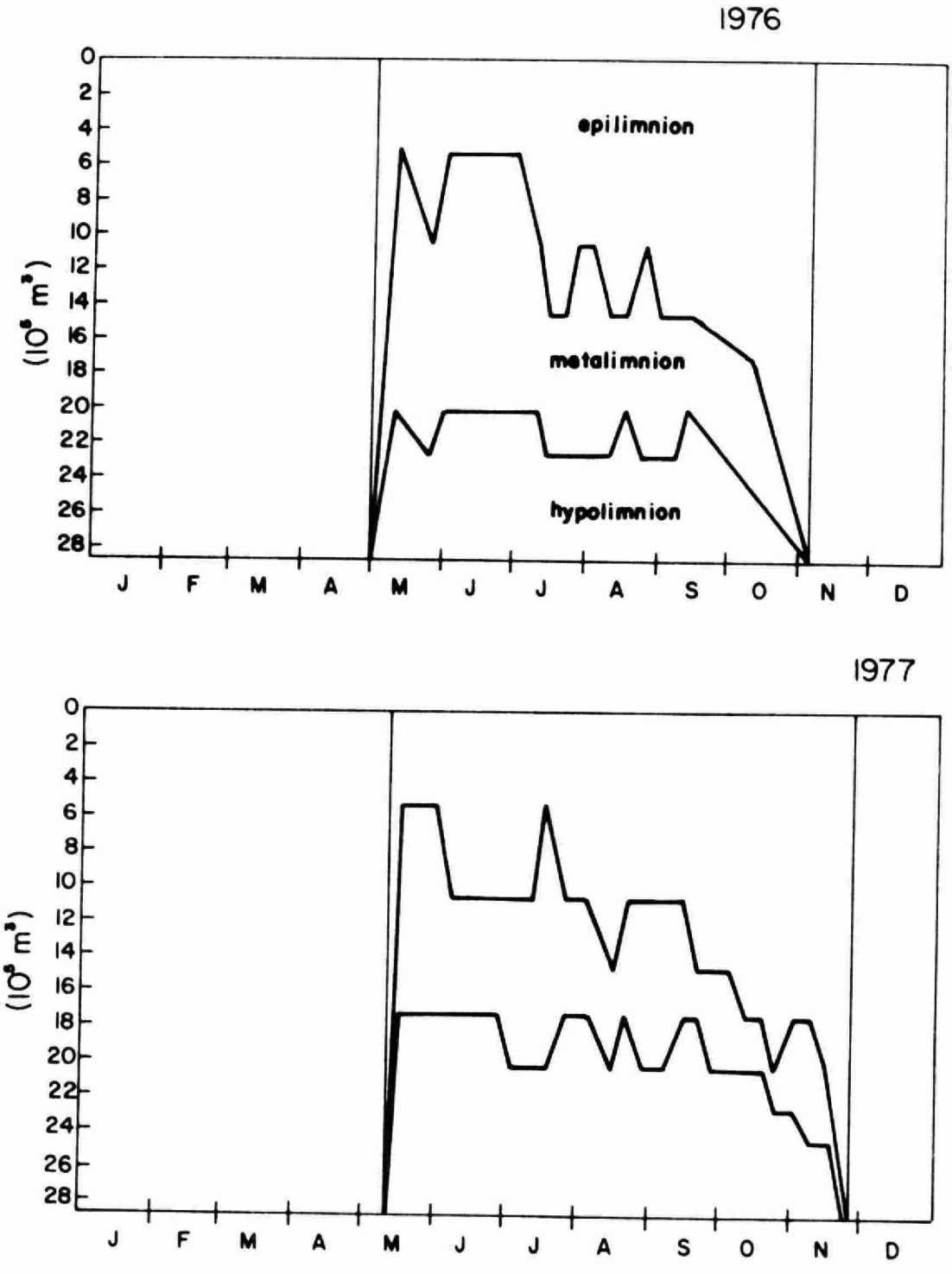
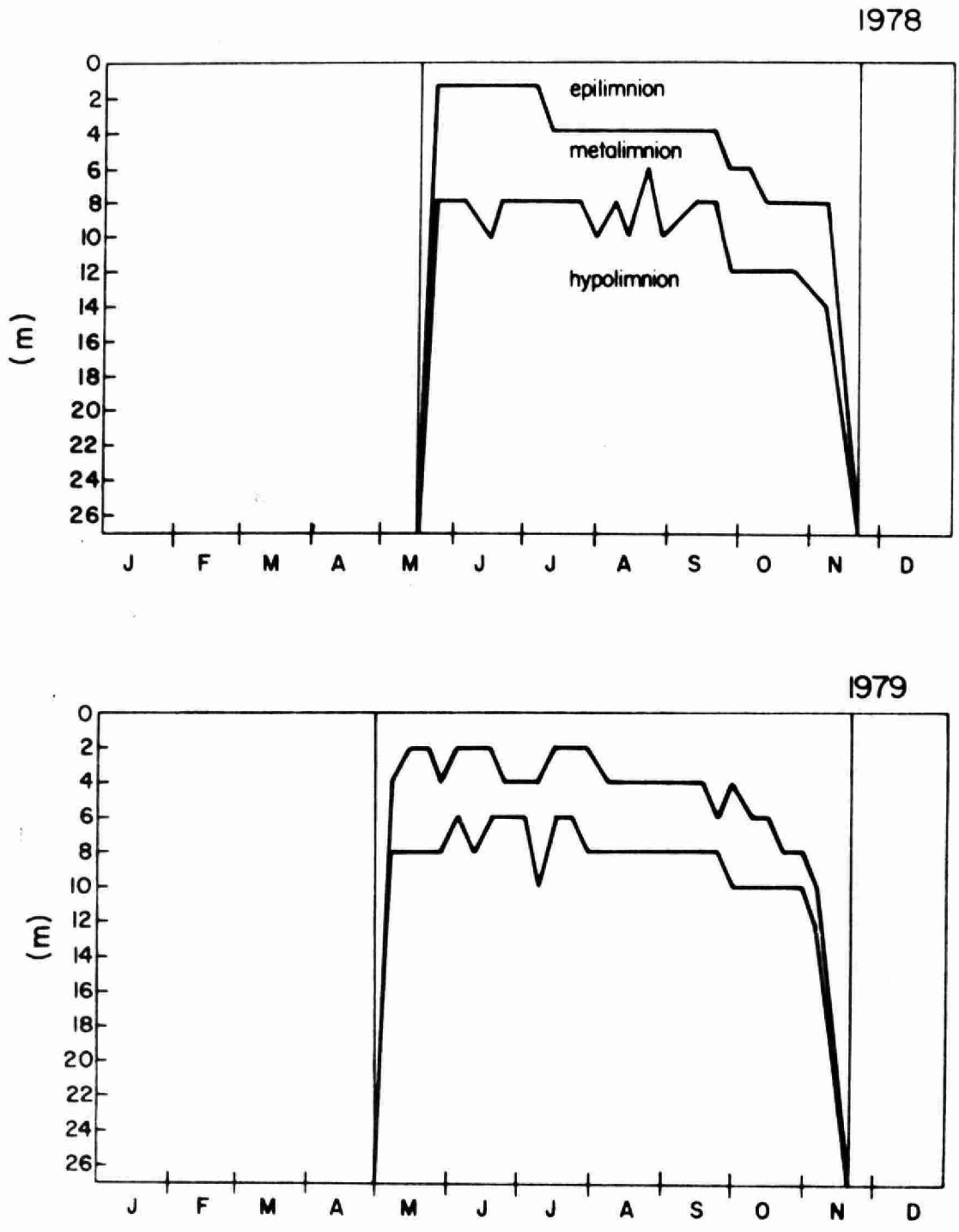


FIGURE 11

CHUB LAKE - DEPTH OF STRATA



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CHUB LAKE - VOLUME OF STRATA

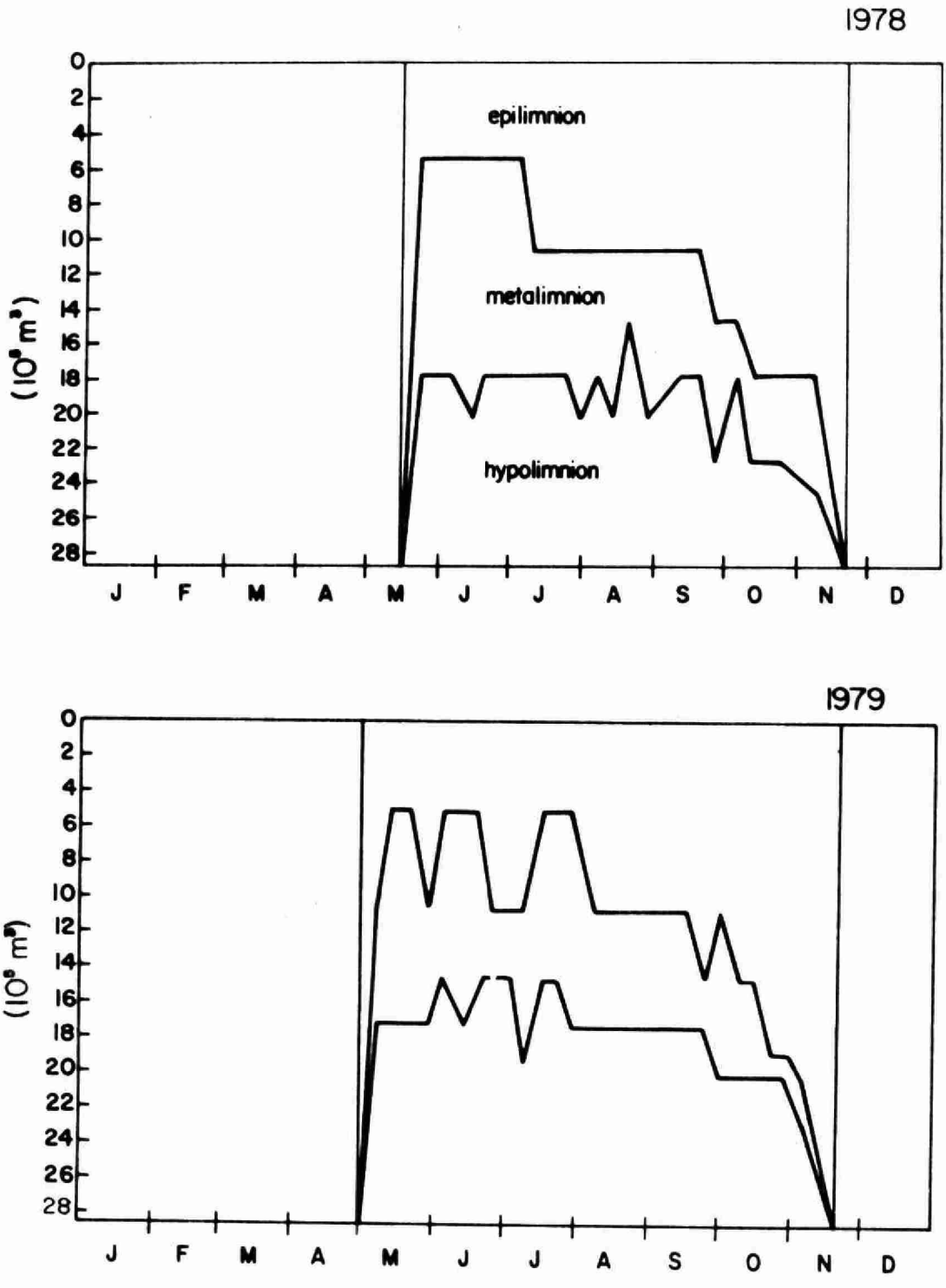


FIGURE 13

CHUB LAKE - DEPTH OF STRATA

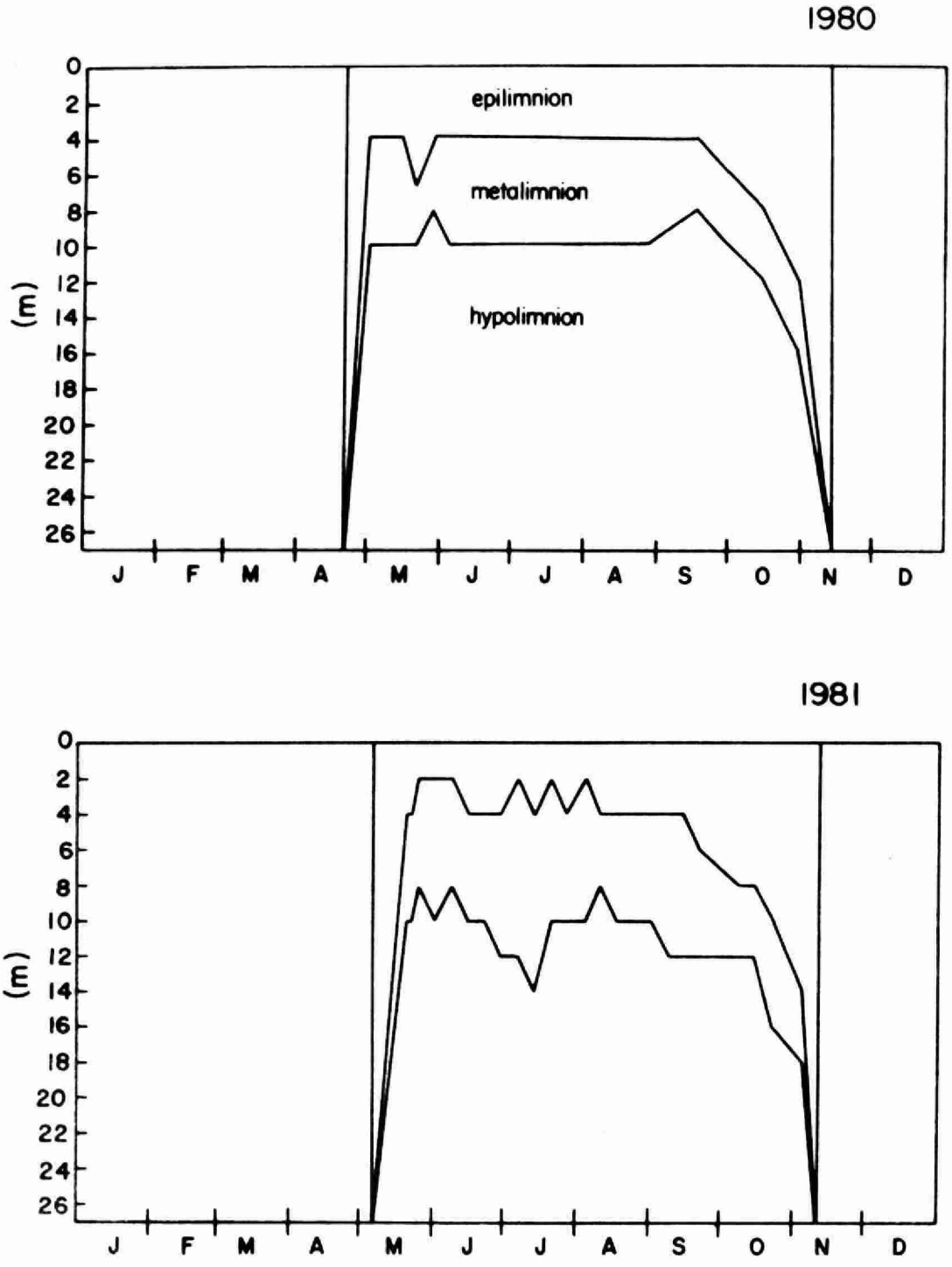


FIGURE 14

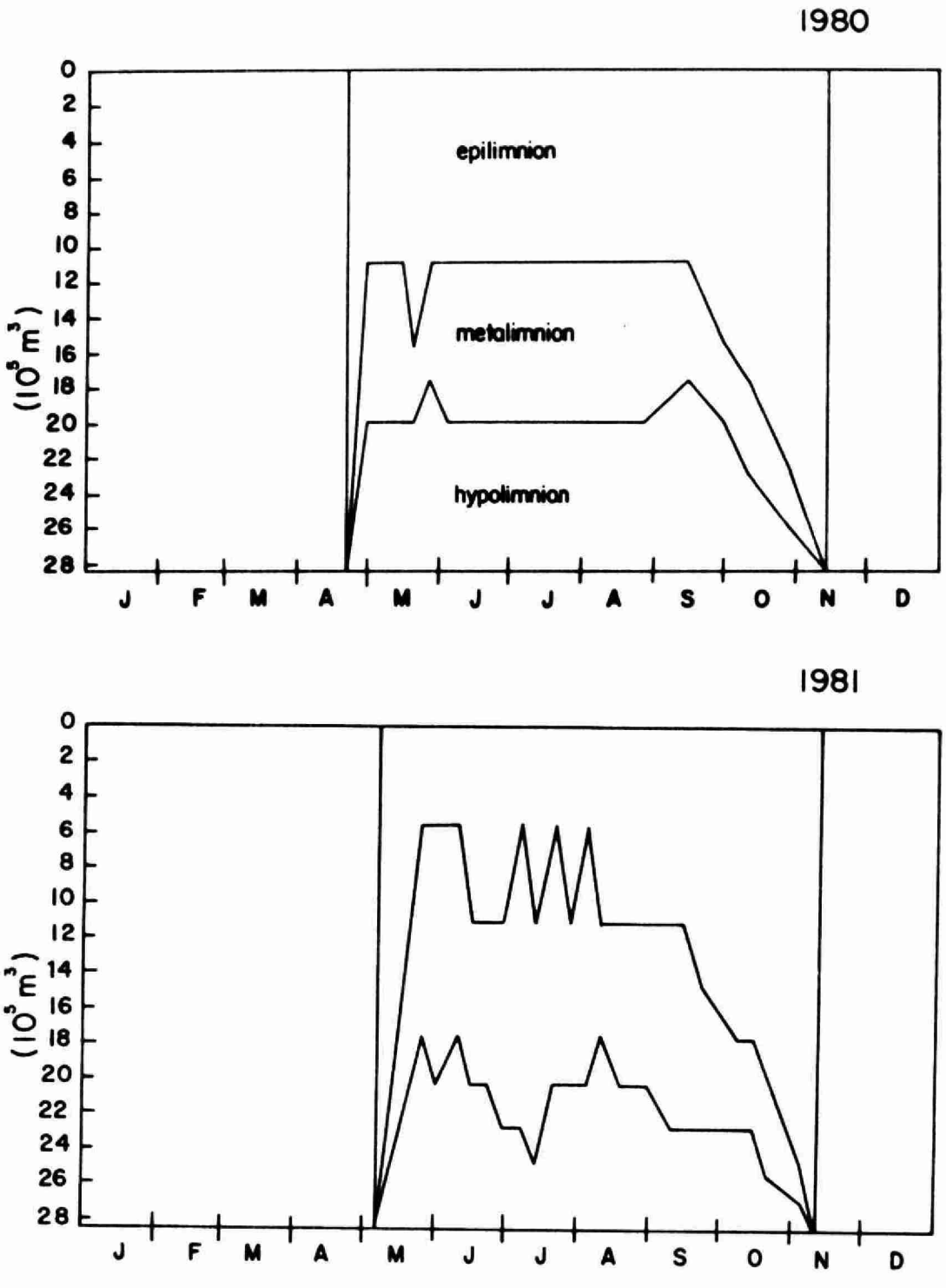

CHUB LAKE - VOLUME OF STRATA
1980
epilimnion
metalimnion
hypolimnion
$(10^5 m^3)$
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
J F M A M J J A S O N D
1981
$(10^5 m^3)$
J F M A M J J A S O N D

FIGURE 15

CHUB LAKE - DEPTH OF STRATA

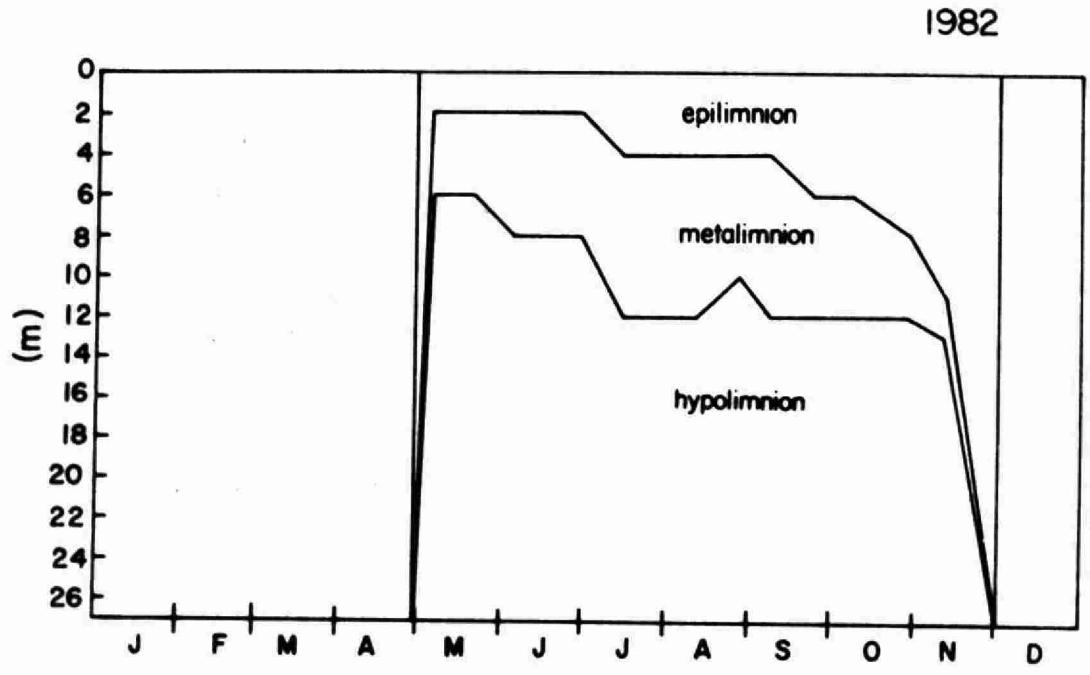


FIGURE 16

CHUB LAKE - VOLUME OF STRATA

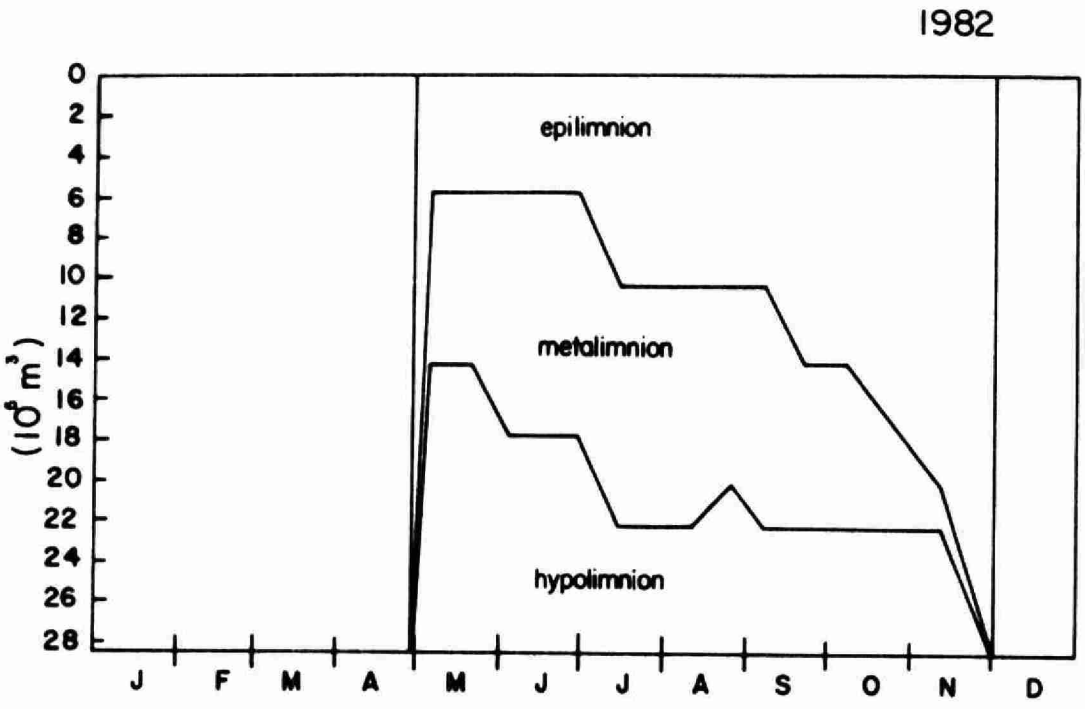
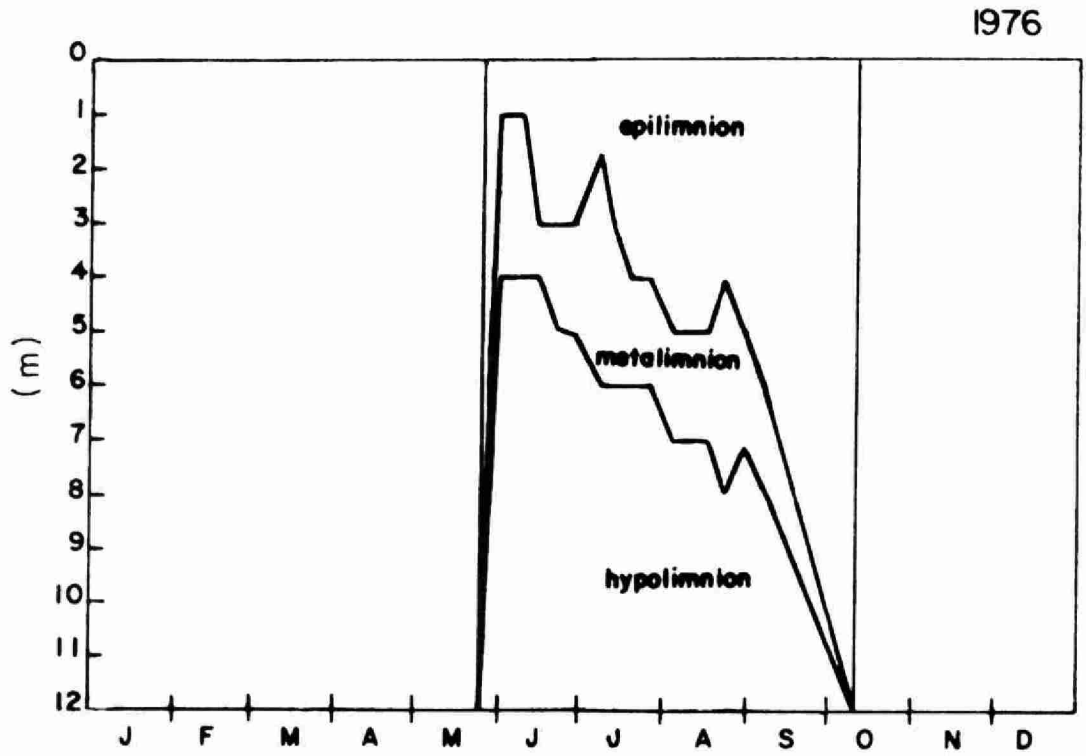


FIGURE 17

DICKIE LAKE - DEPTH OF STRATA



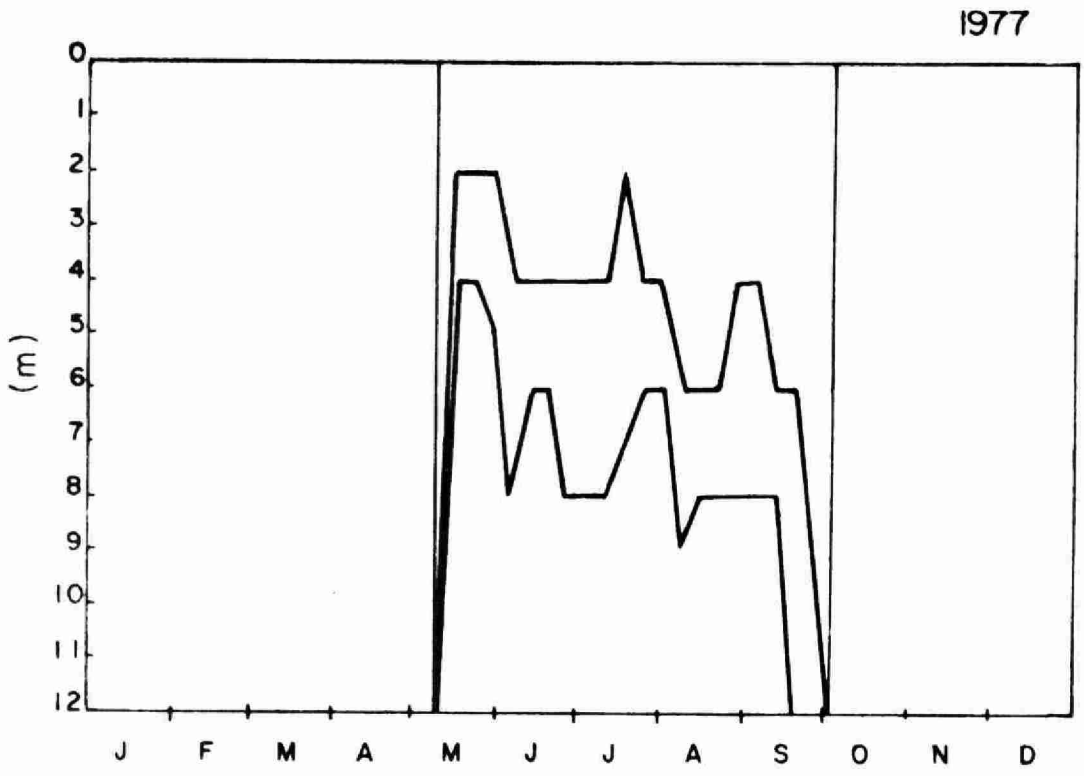


FIGURE 18

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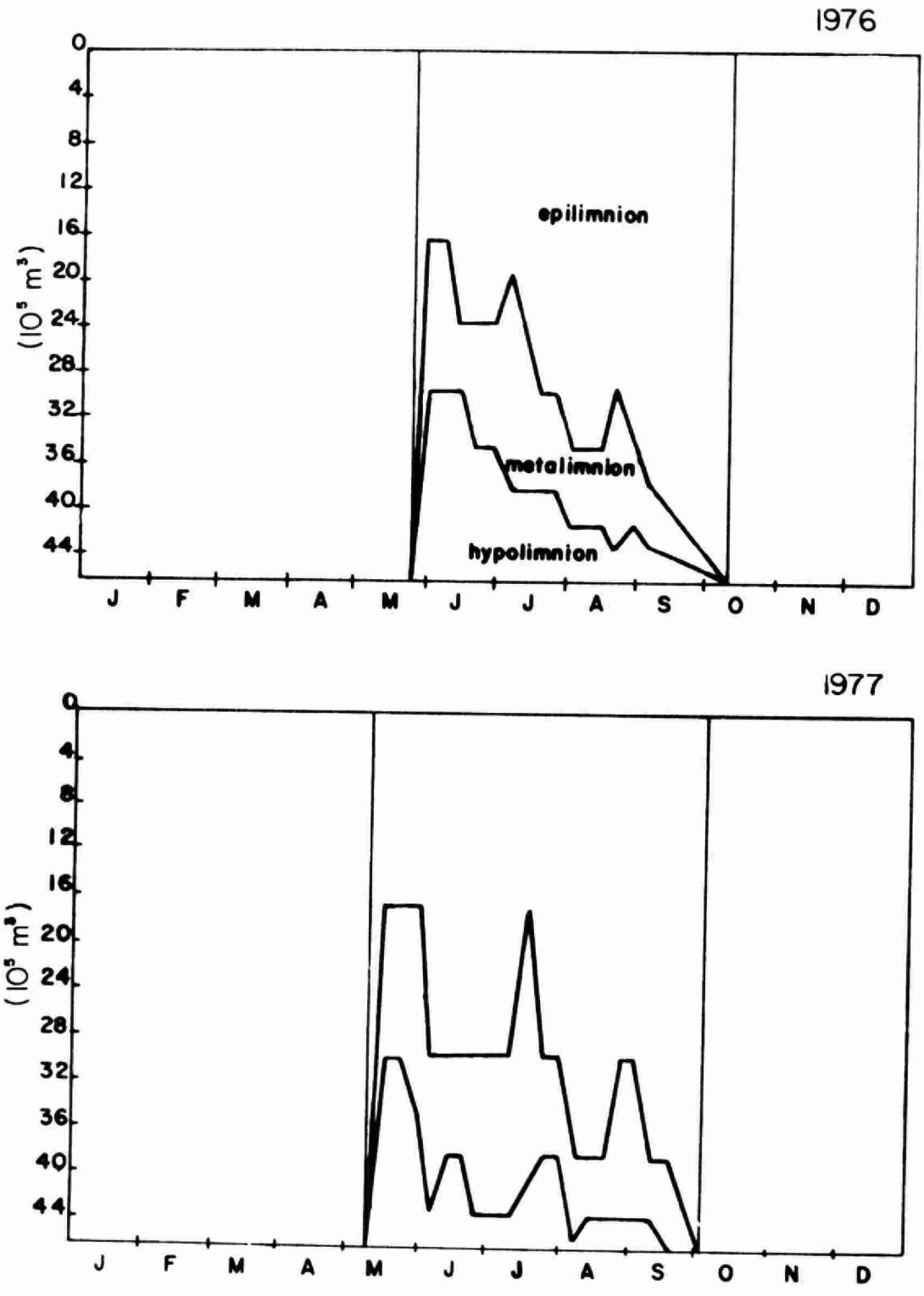

FIGURE 19

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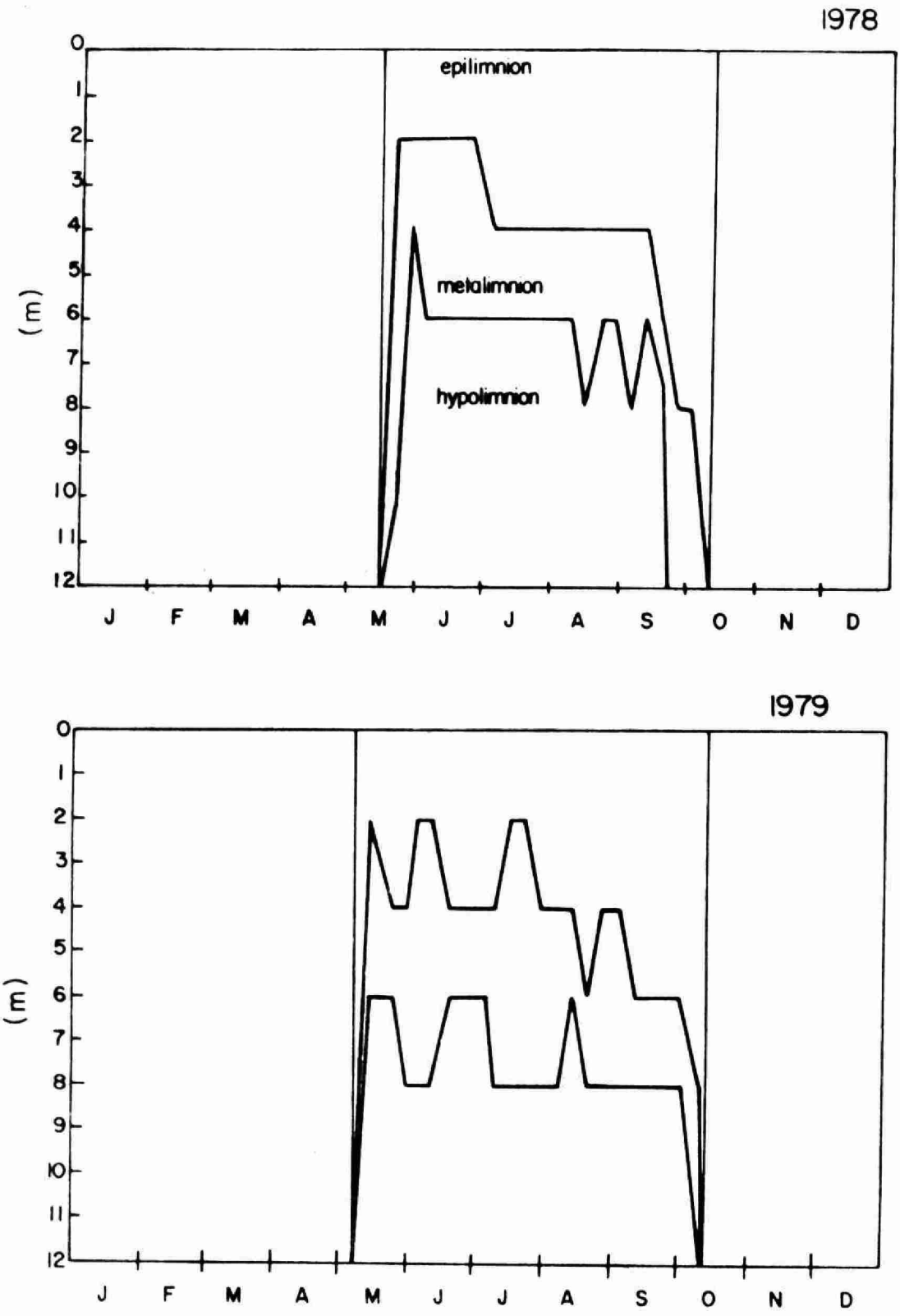


FIGURE 20

DICKIE LAKE - VOLUME OF STRATA

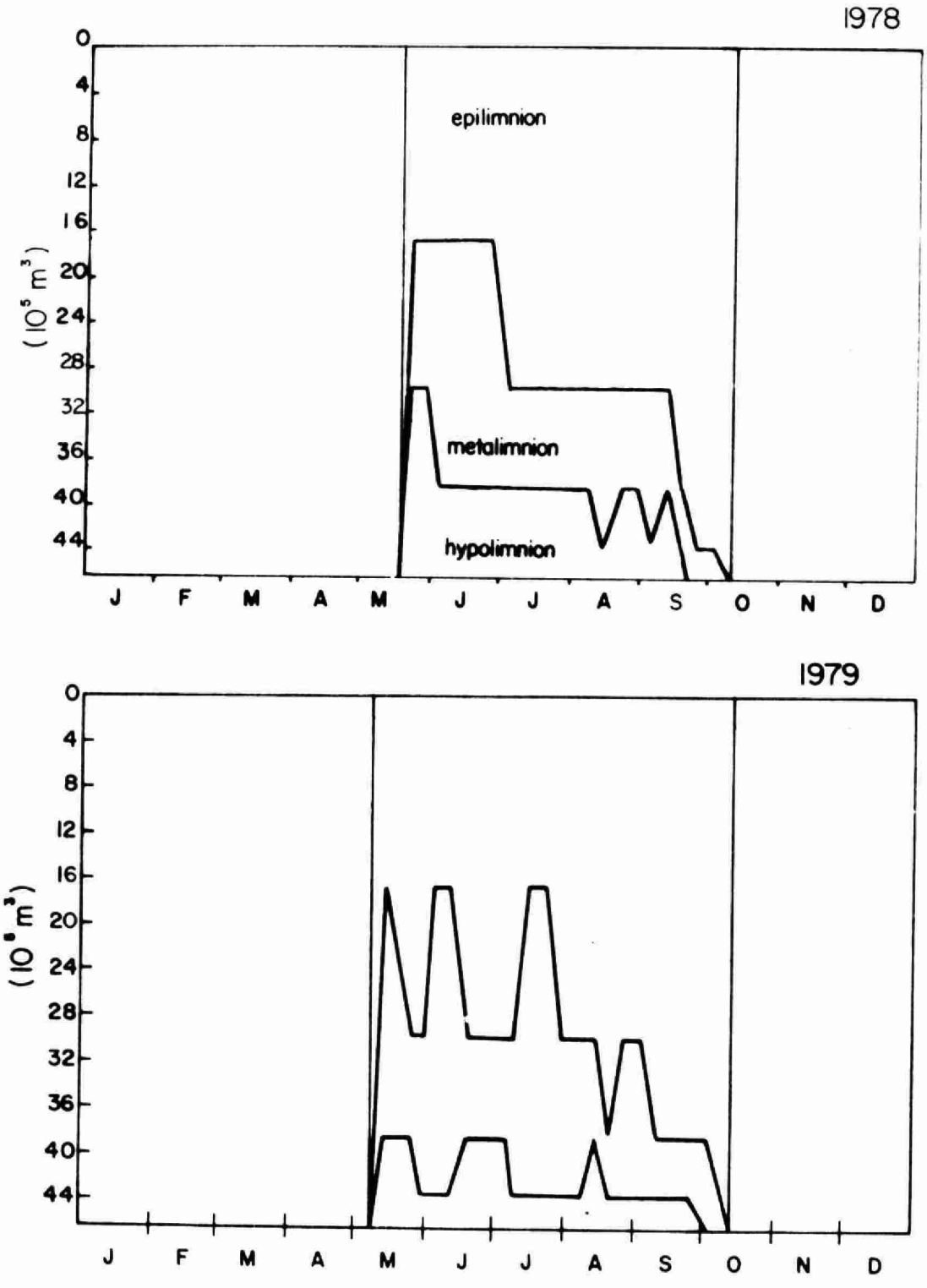
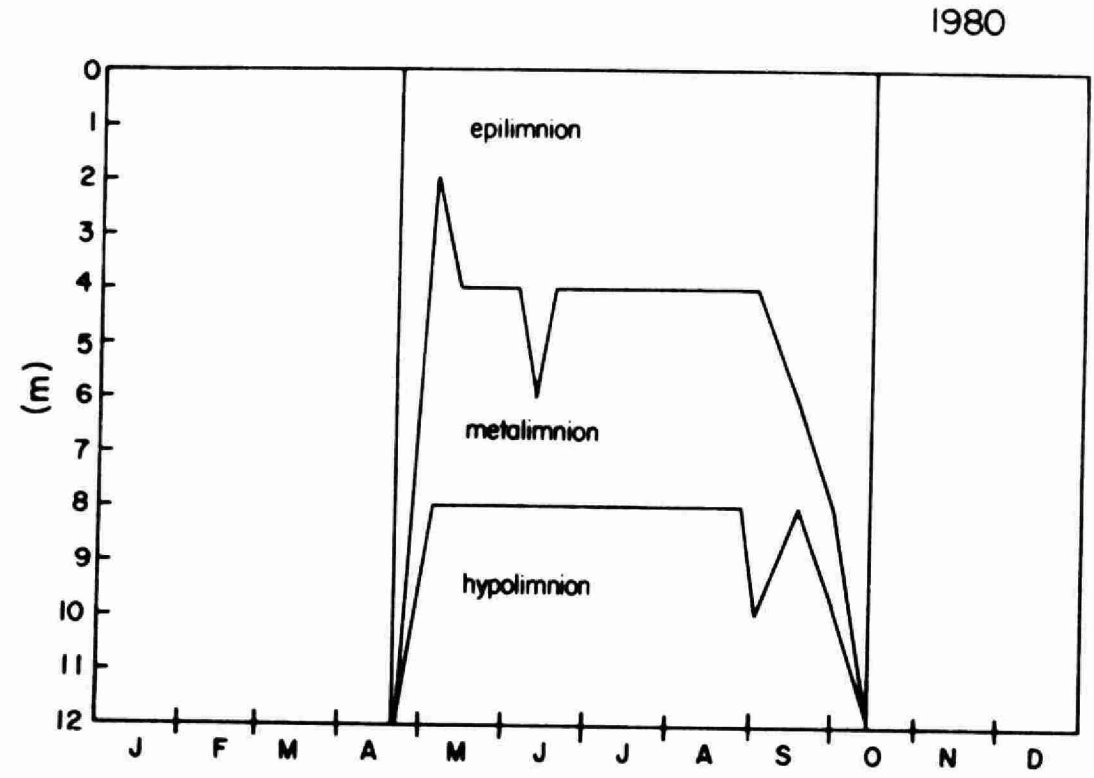


FIGURE 21

DICKIE LAKE - DEPTH OF STRATA



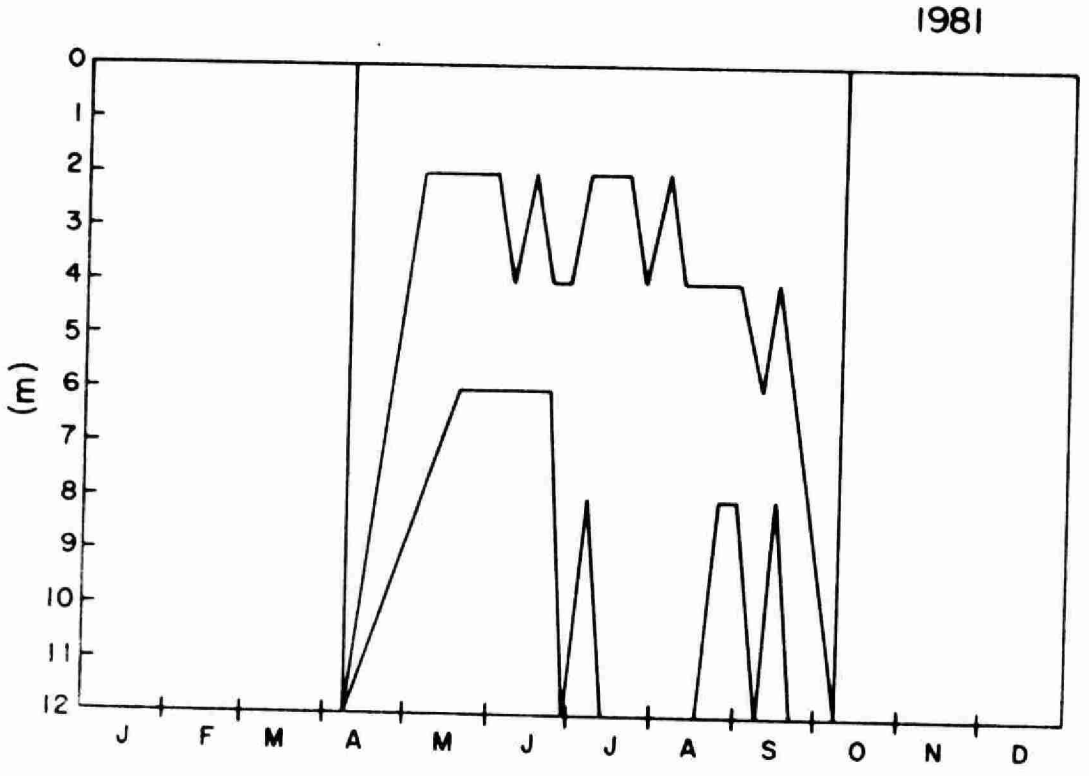


FIGURE 22

DICKIE LAKE - VOLUME OF STRATA

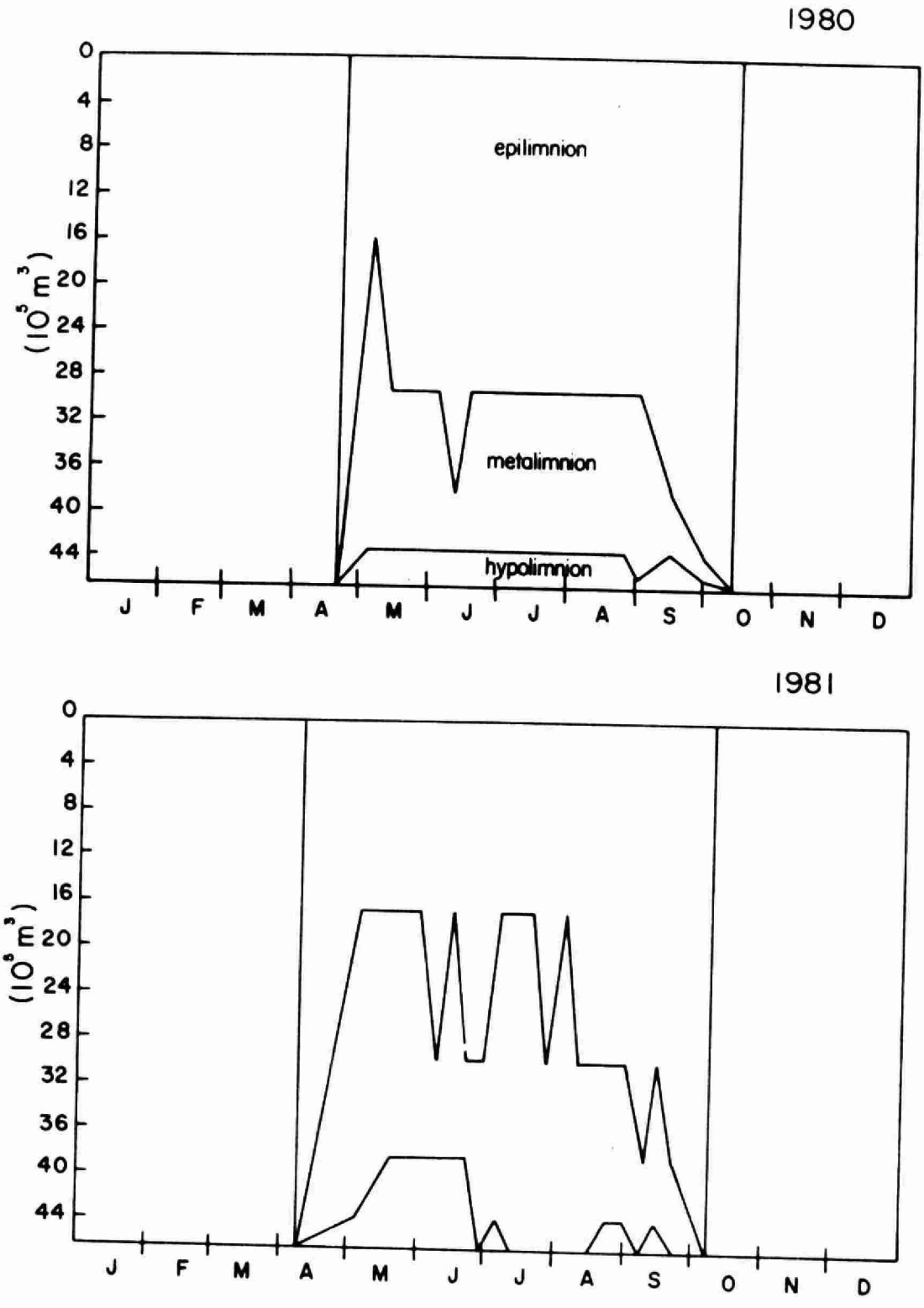


FIGURE 23

DICKIE LAKE - DEPTH OF STRATA

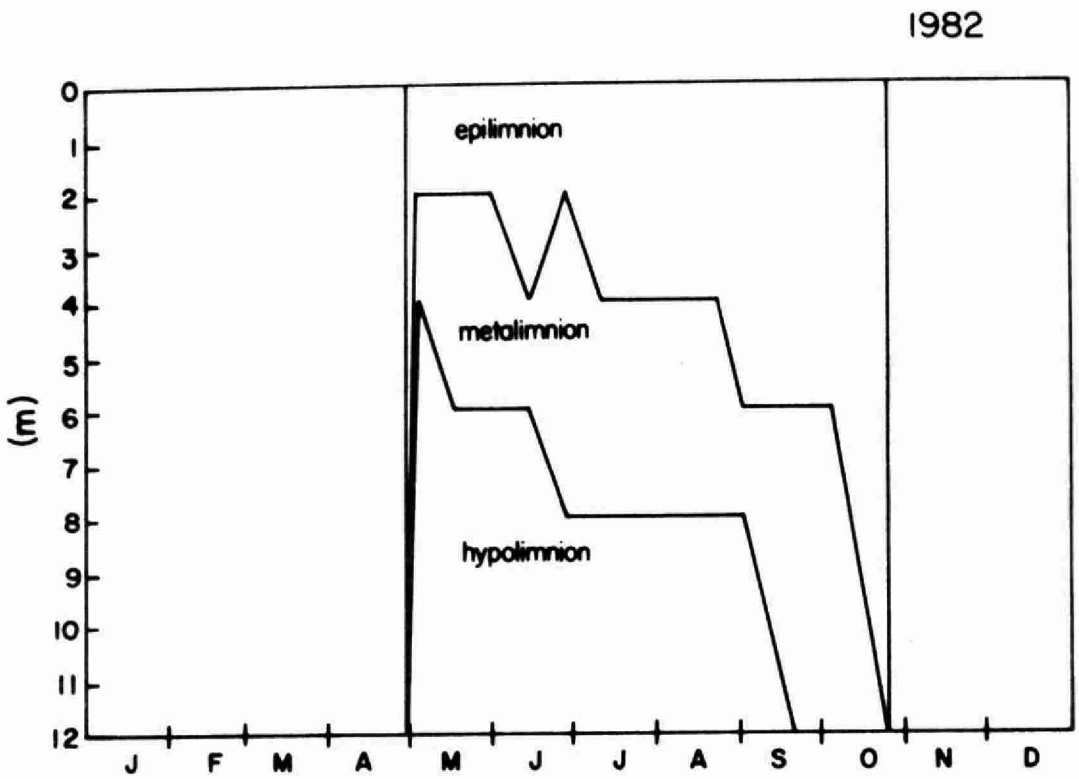


FIGURE 24

DICKIE LAKE - VOLUME OF STRATA

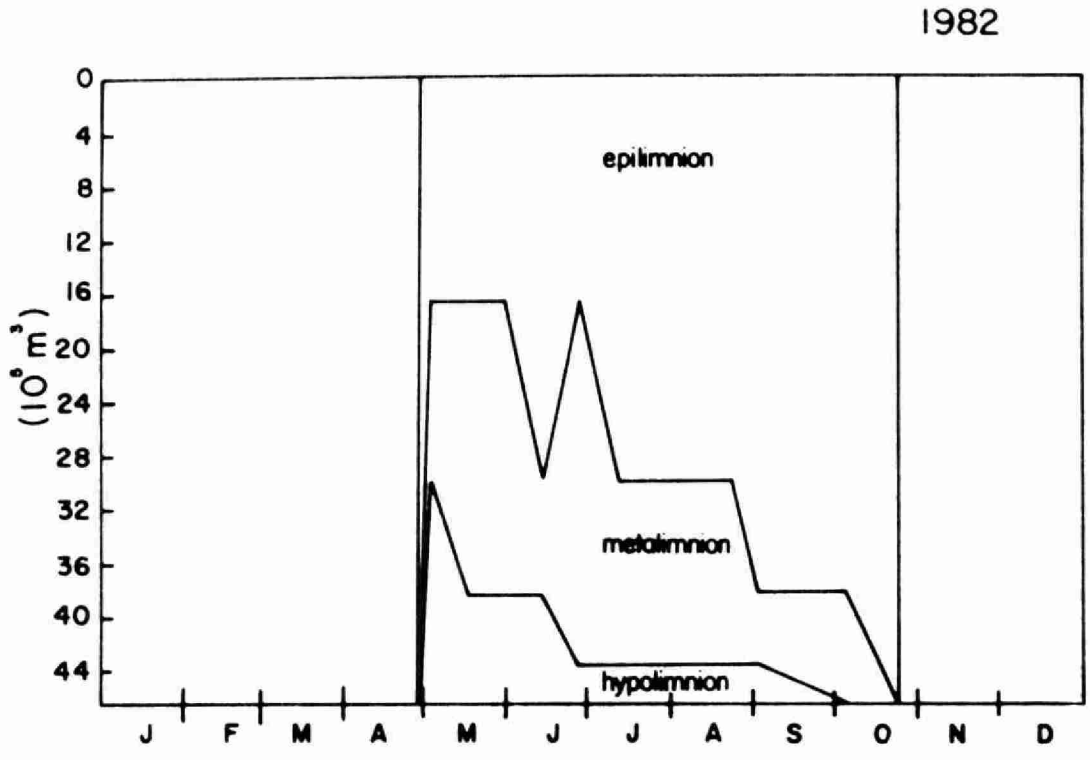
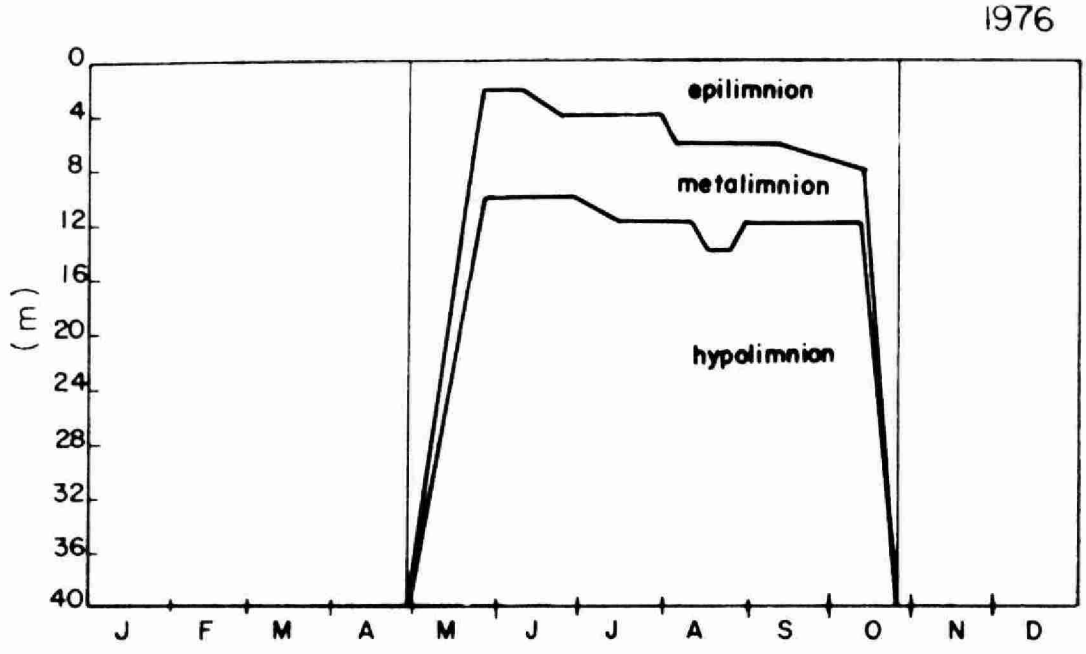


FIGURE 25

HARP LAKE - DEPTH OF STRATA



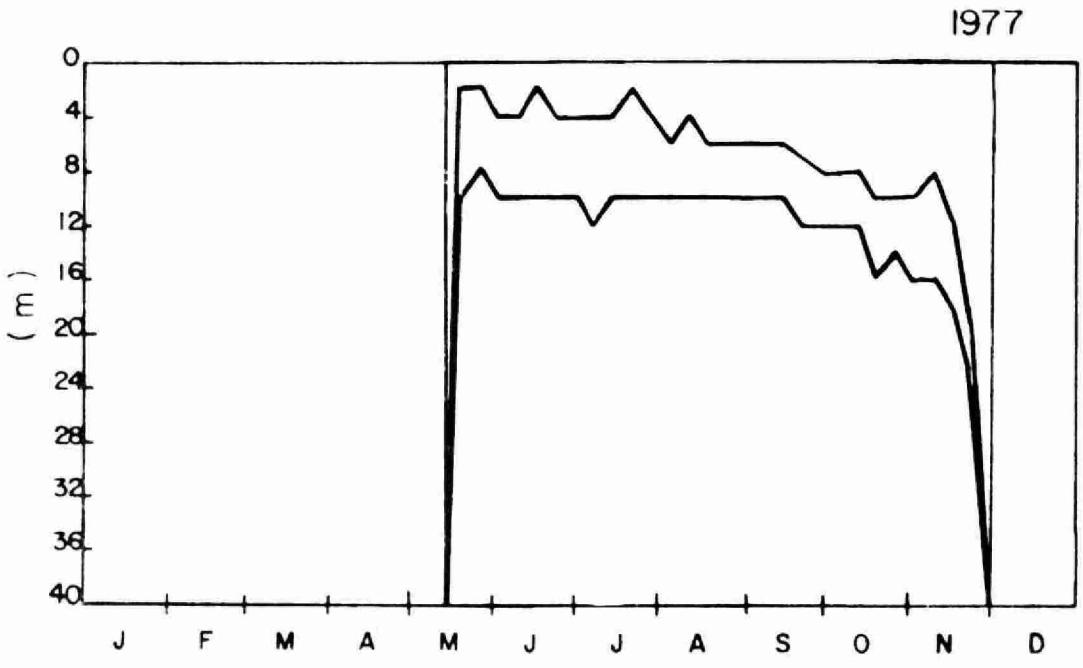
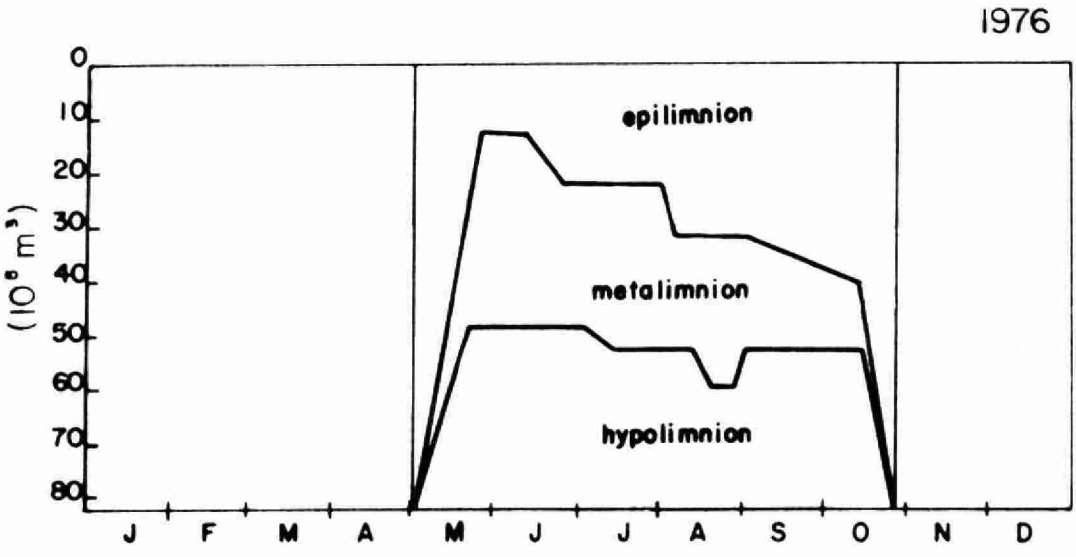


FIGURE 26

HARP LAKE - VOLUME OF STRATA



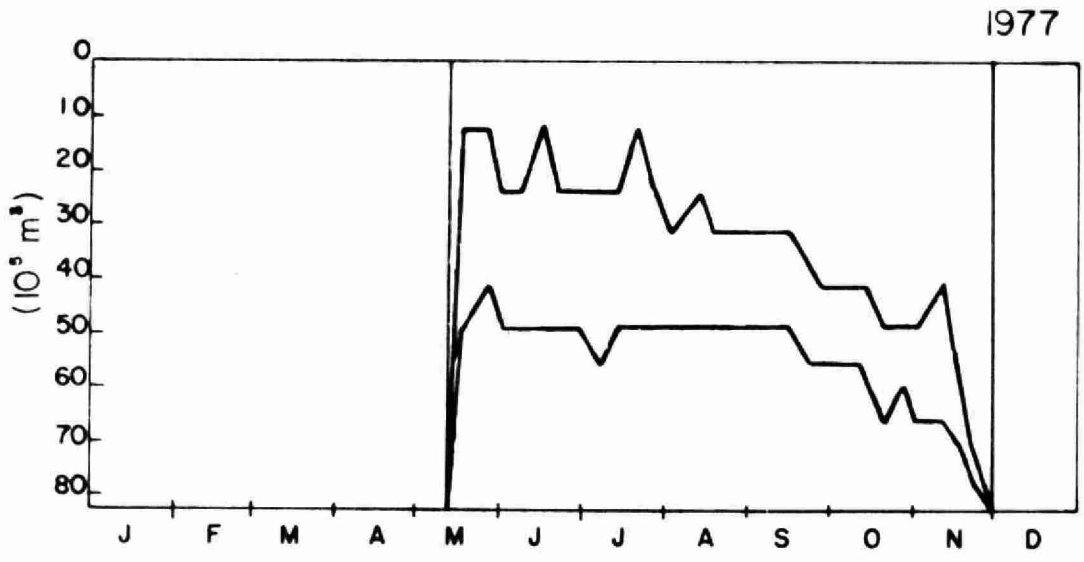
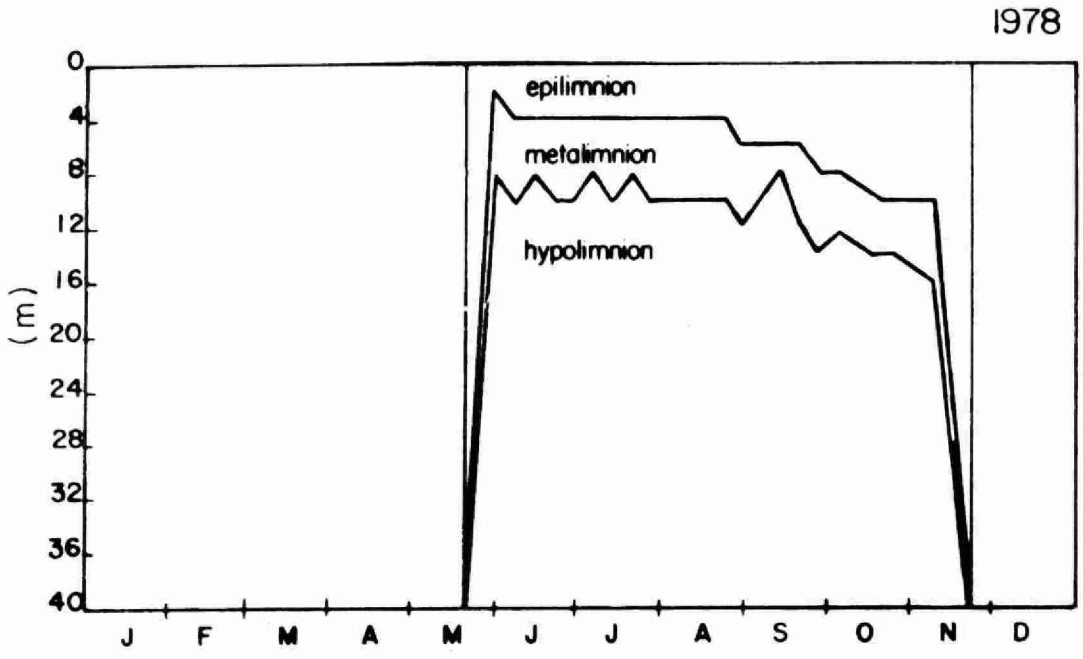


FIGURE 27

HARP LAKE - DEPTH OF STRATA



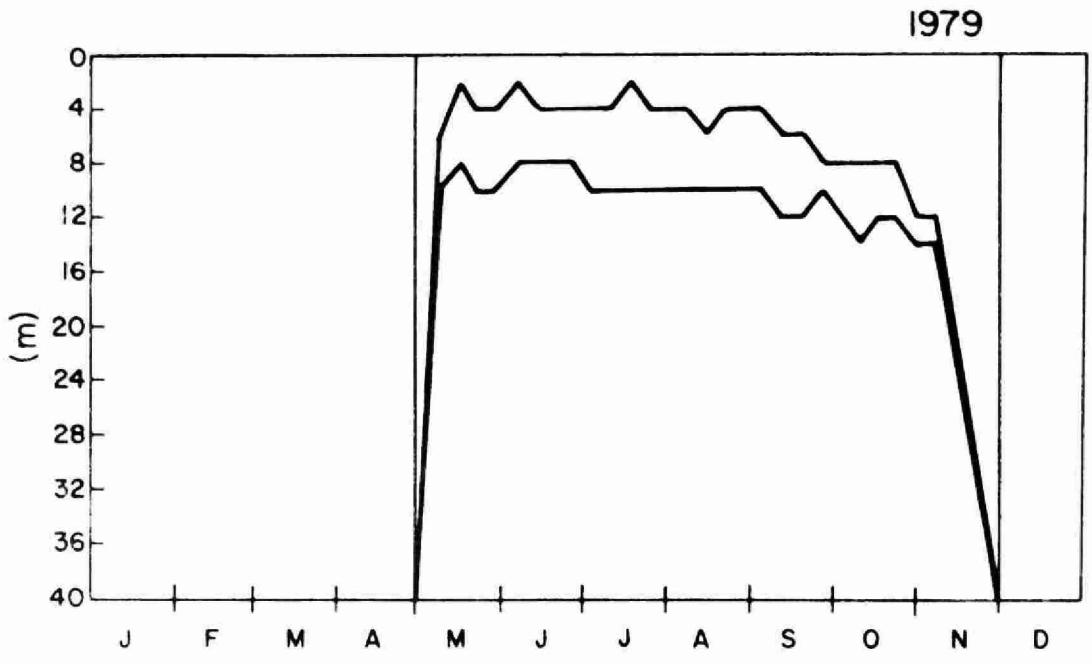
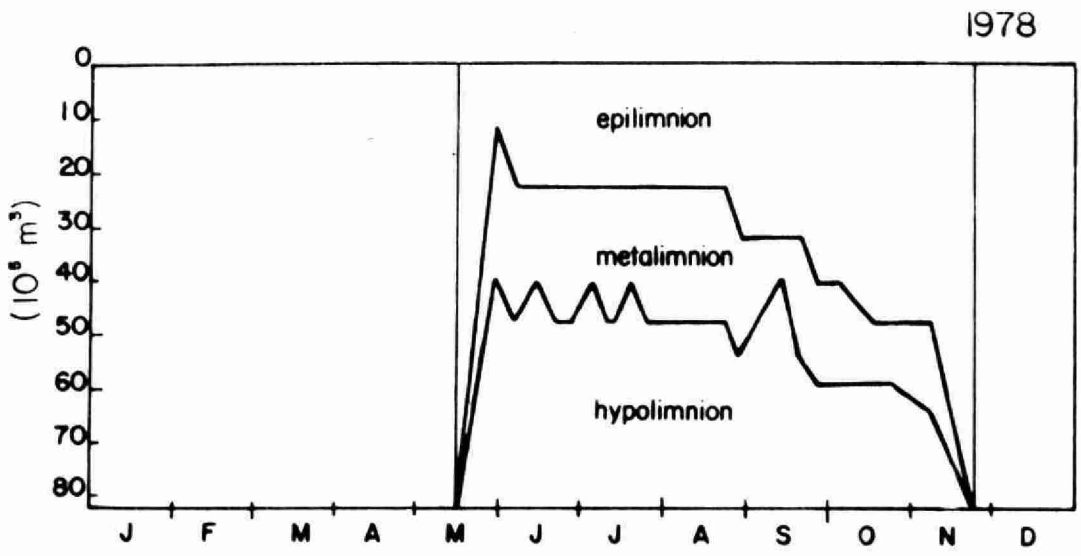


FIGURE 28

HARP LAKE - VOLUME OF STRATA



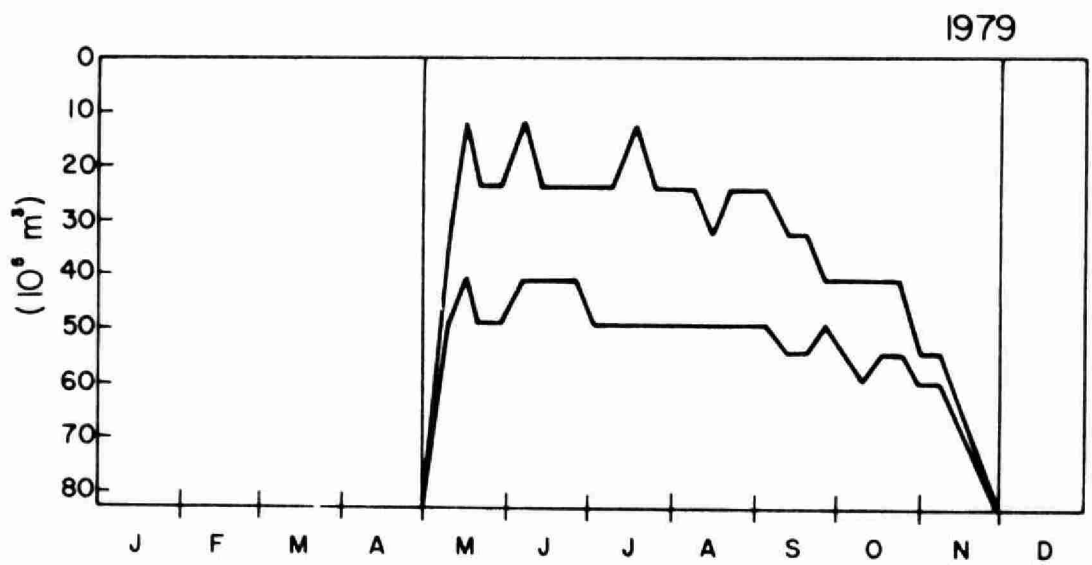
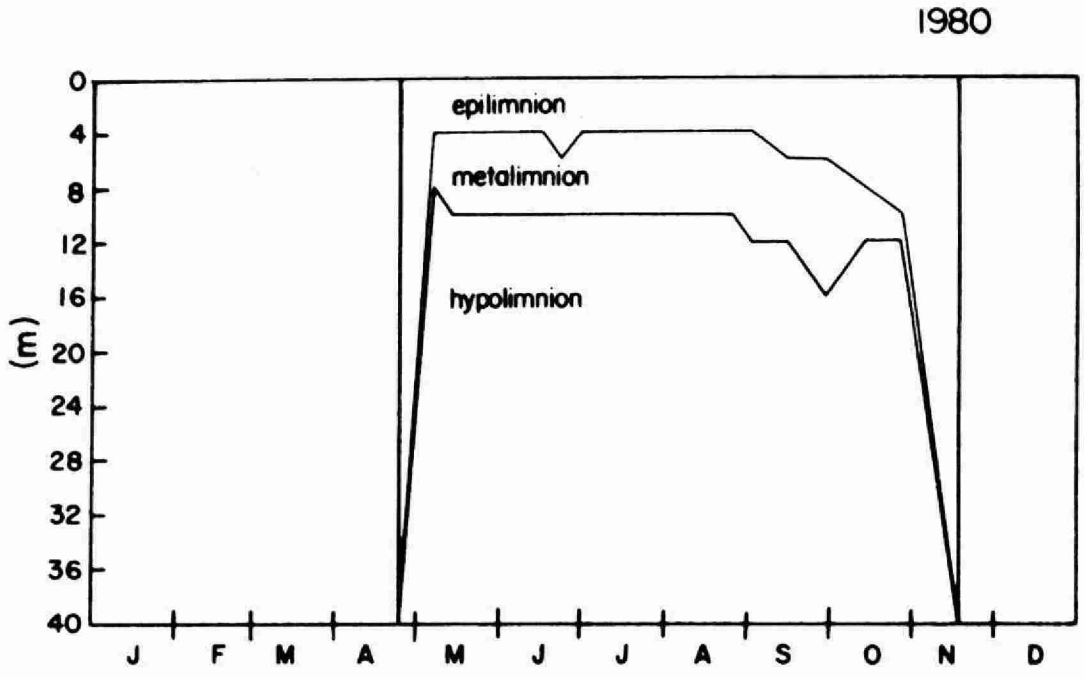


FIGURE 29

HARP LAKE - DEPTH OF STRATA



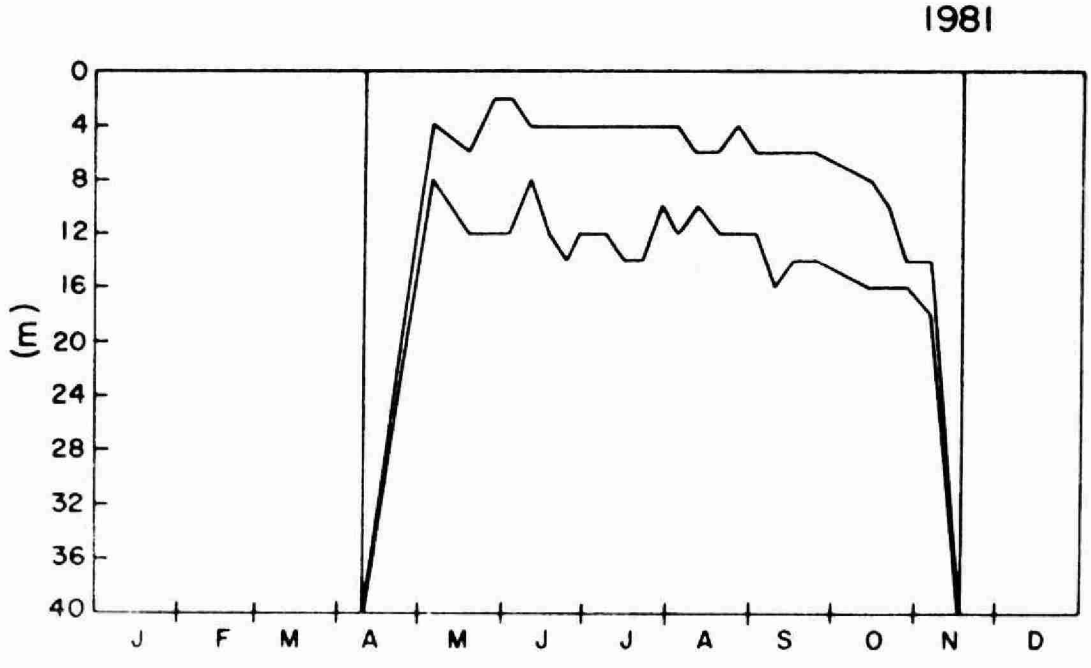


FIGURE 30

HARP LAKE - VOLUME OF STRATA

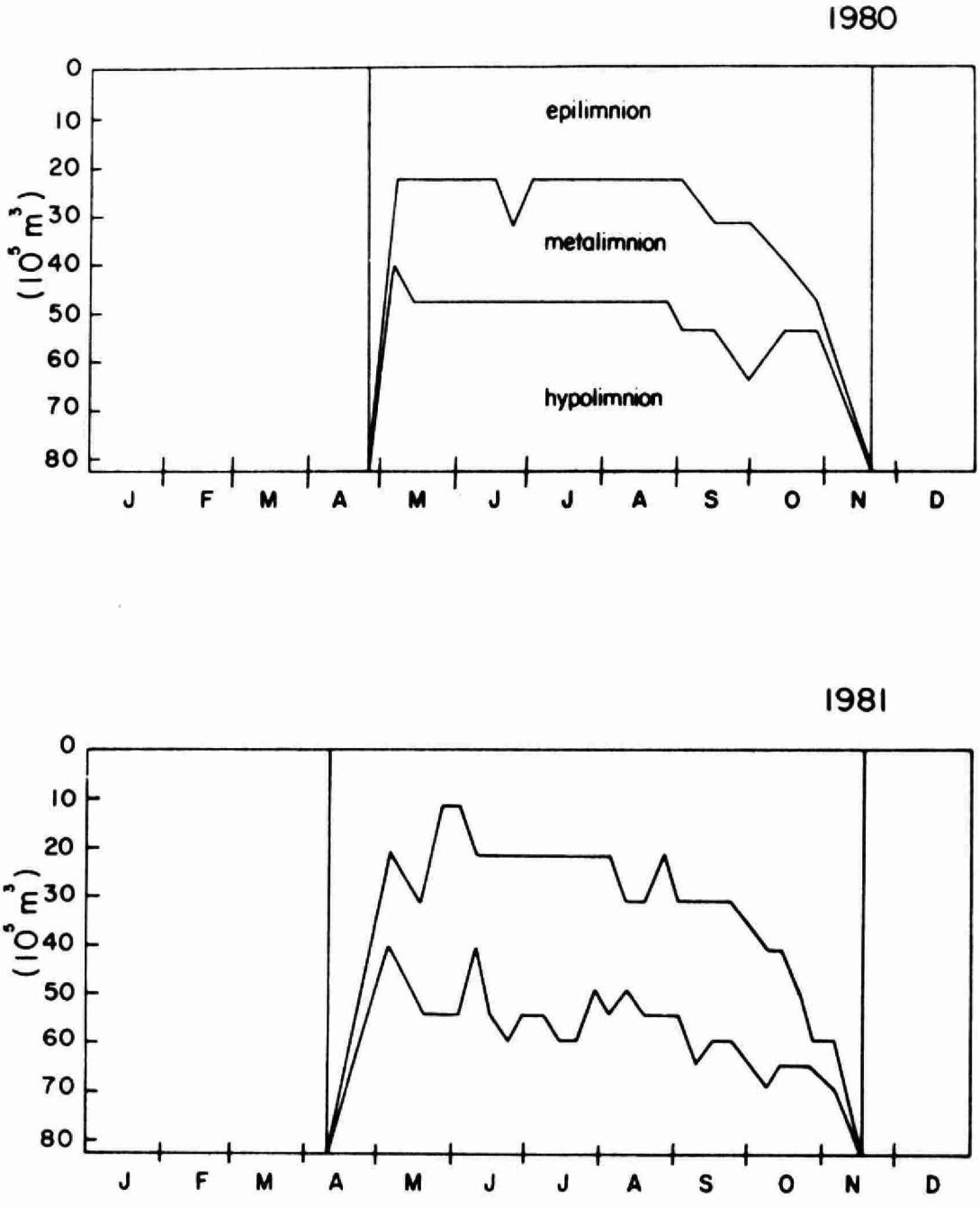


FIGURE 31

HARP LAKE - DEPTH OF STRATA

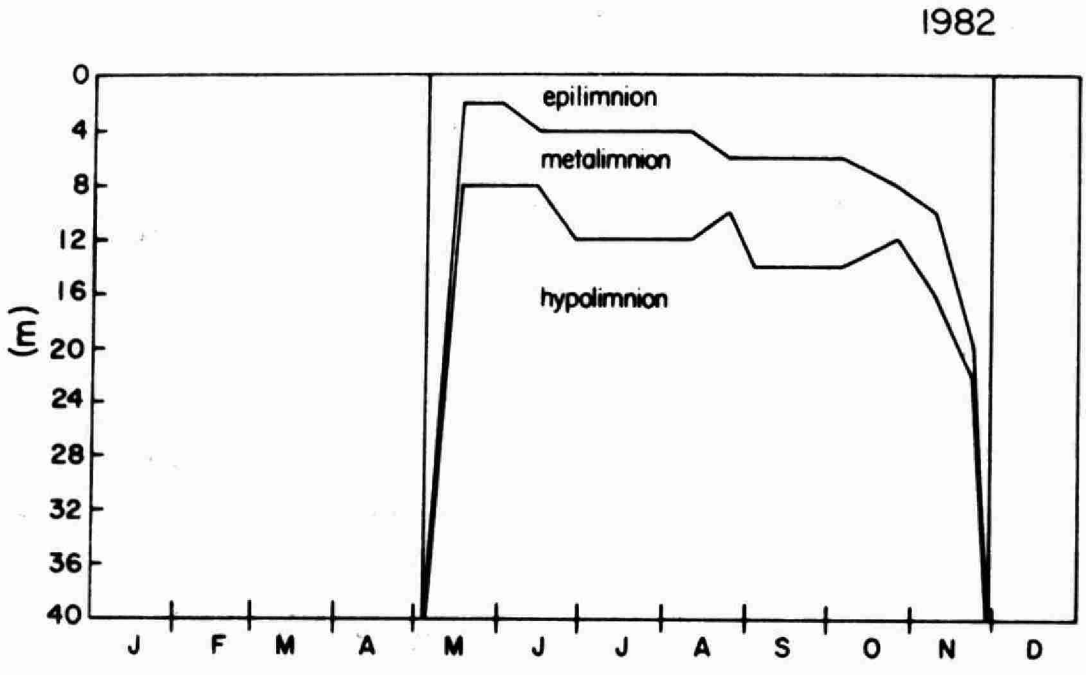


FIGURE 32

HARP LAKE - VOLUME OF STRATA

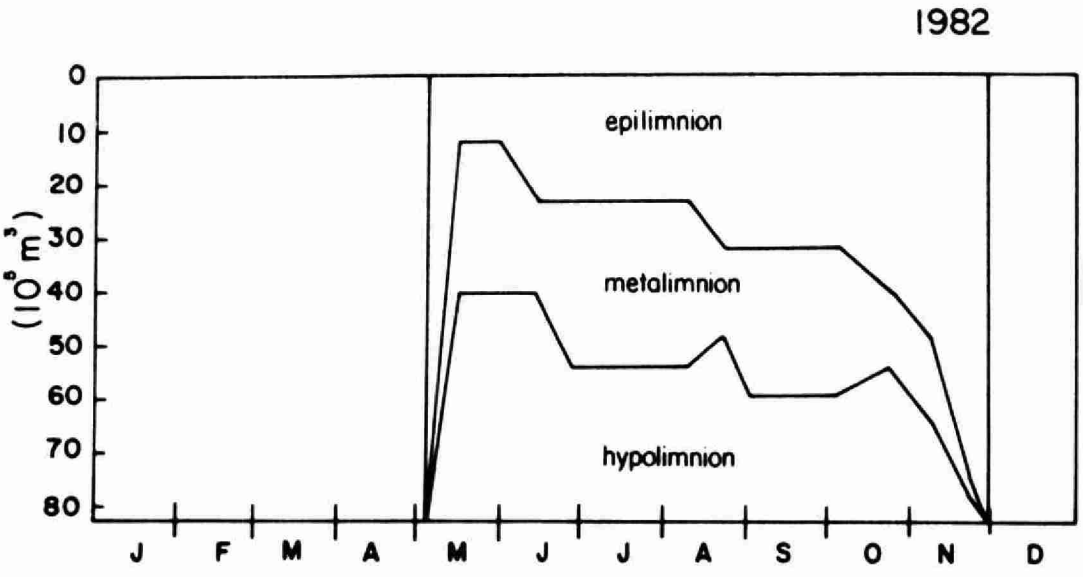
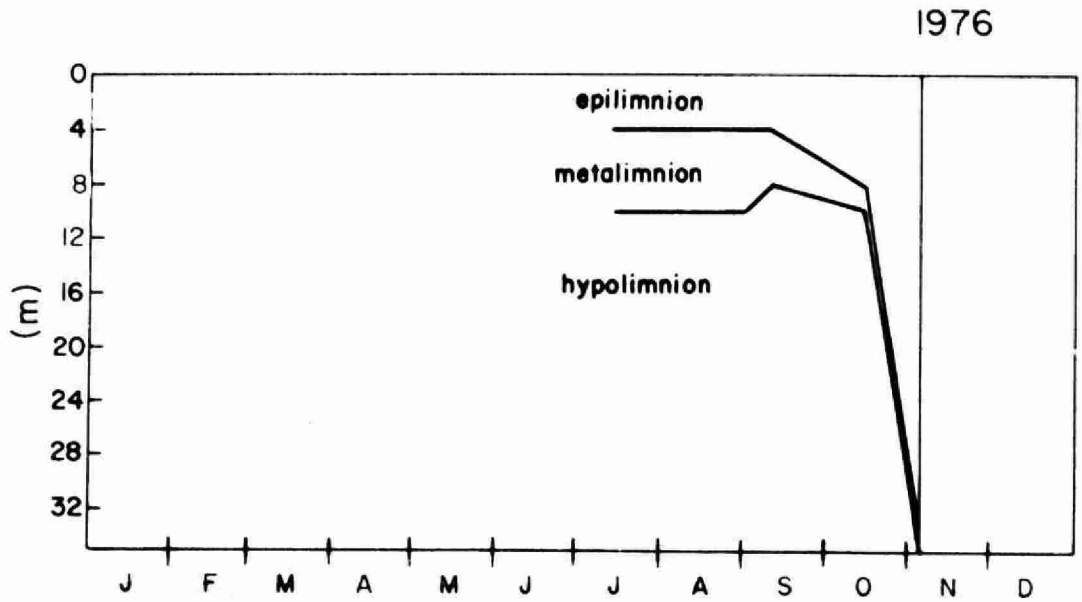


FIGURE 33

JERRY LAKE - DEPTH OF STRATA



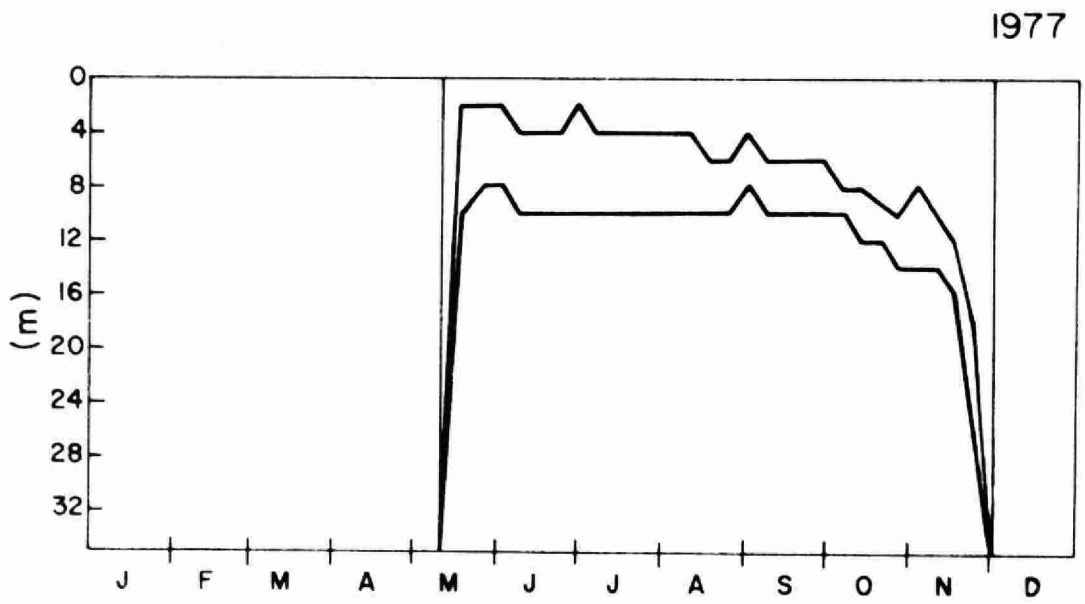


FIGURE 34

JERRY LAKE - VOLUME OF STRATA

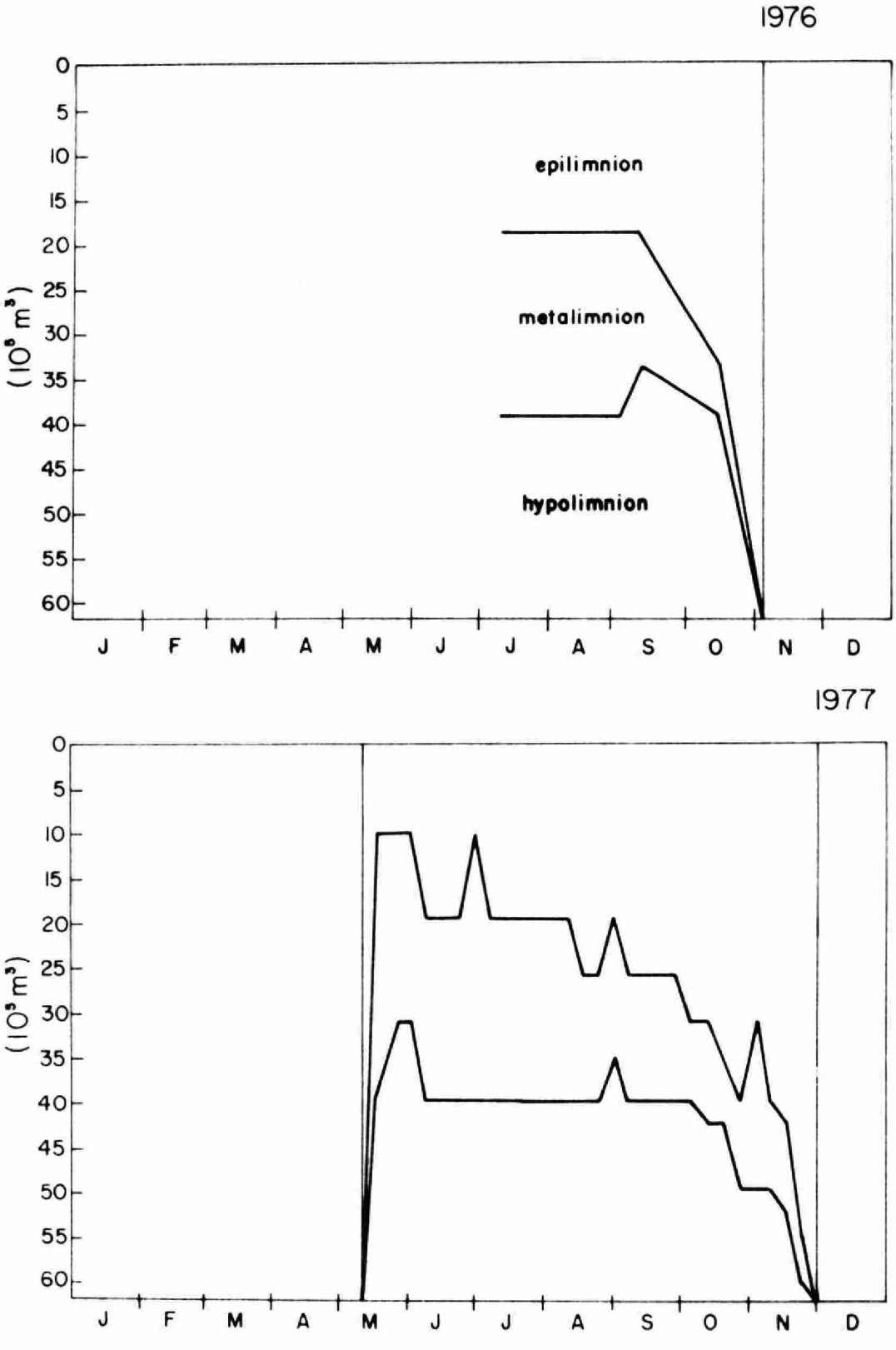


FIGURE 35

JERRY LAKE - DEPTH OF STRATA

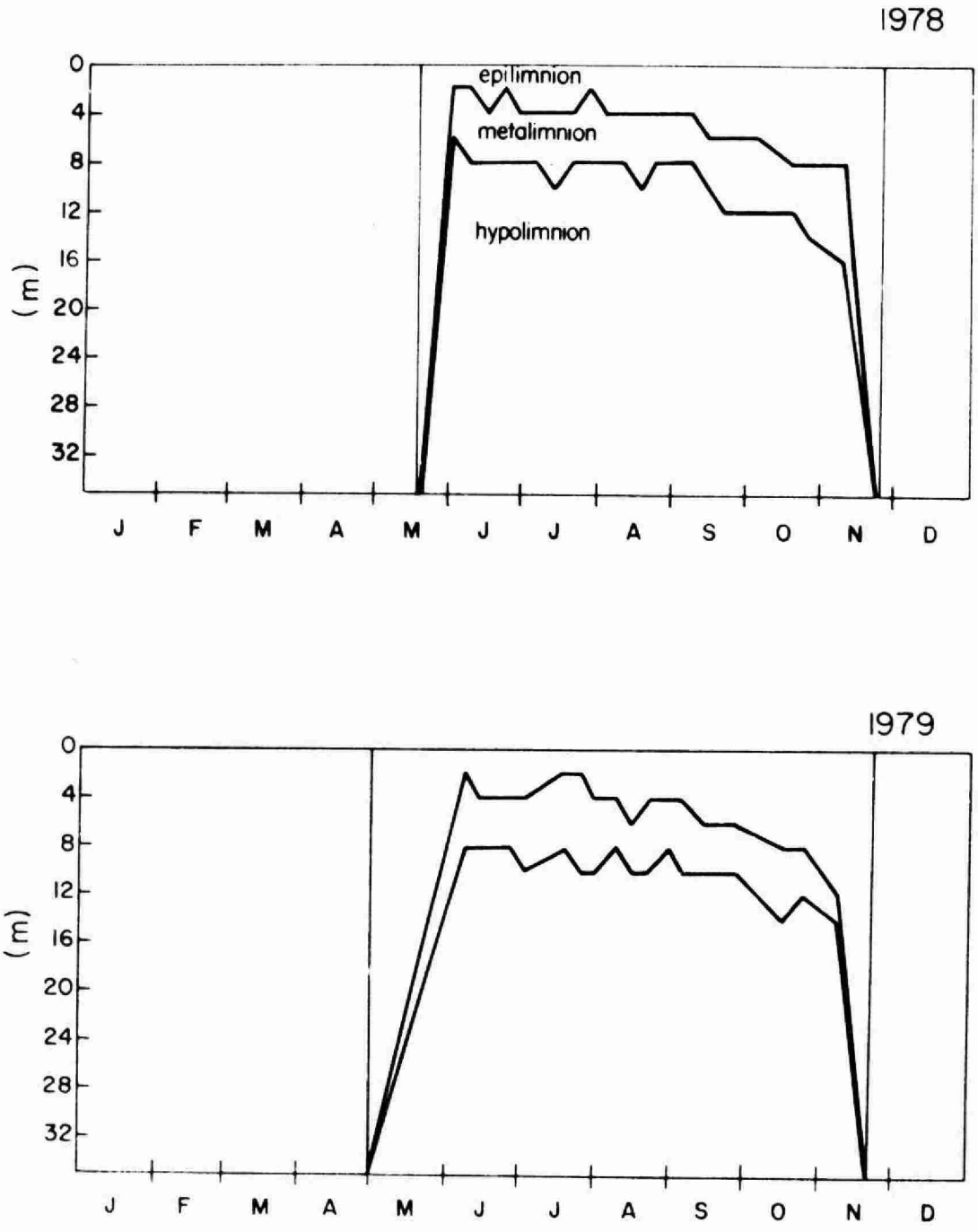


FIGURE 36

JERRY LAKE - VOLUME OF STRATA

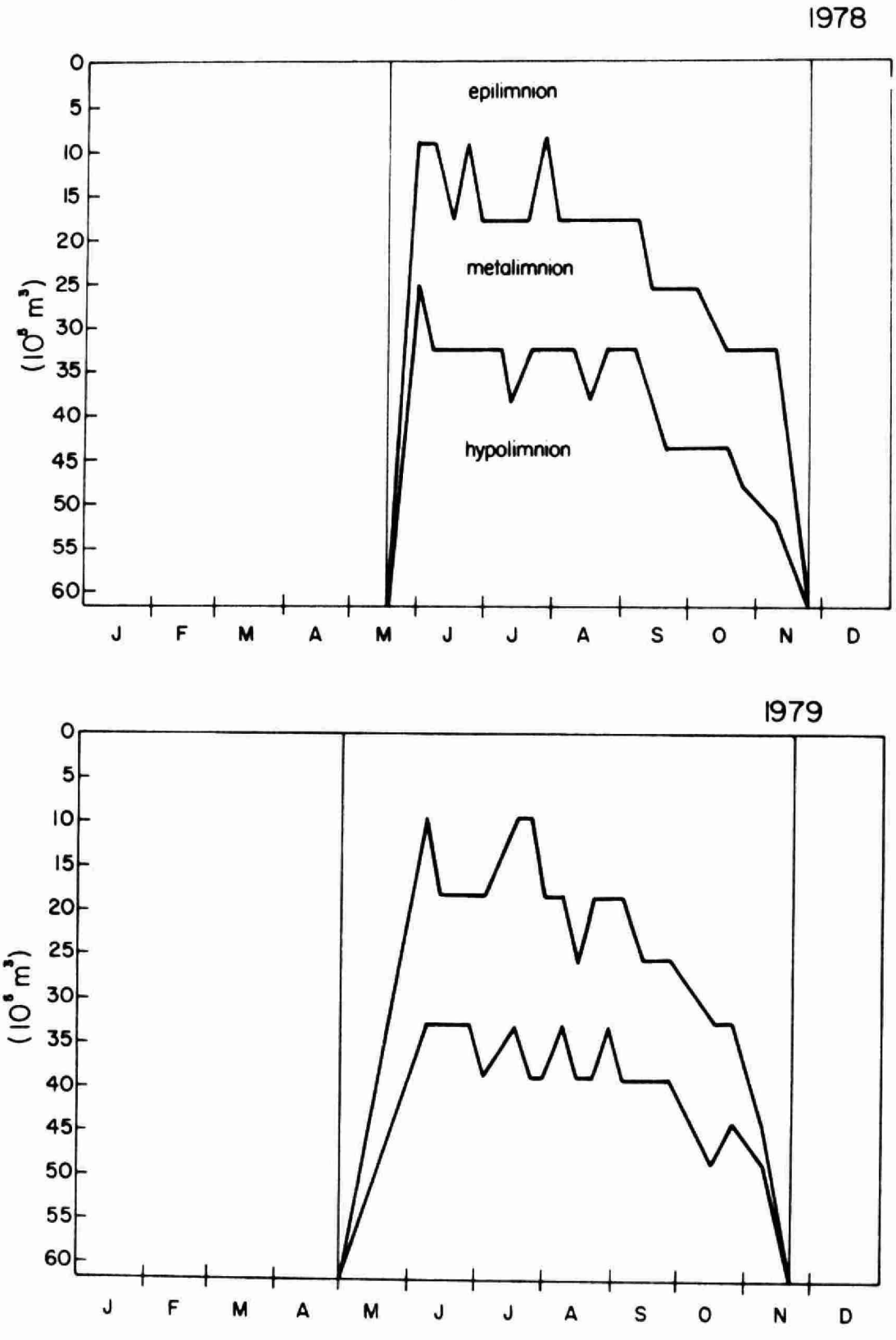


FIGURE 37

RED CHALK LAKE (main) - DEPTH OF STRATA

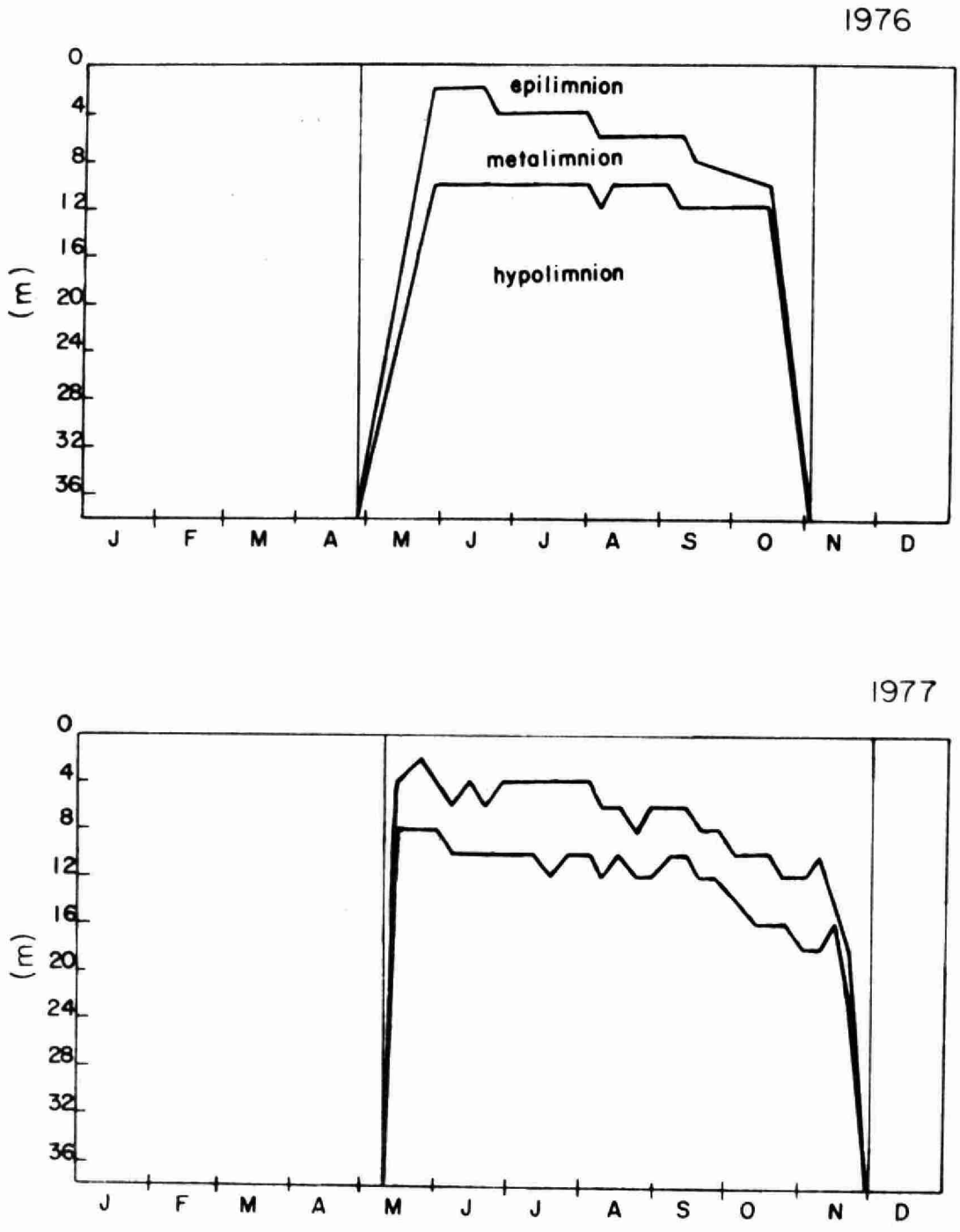
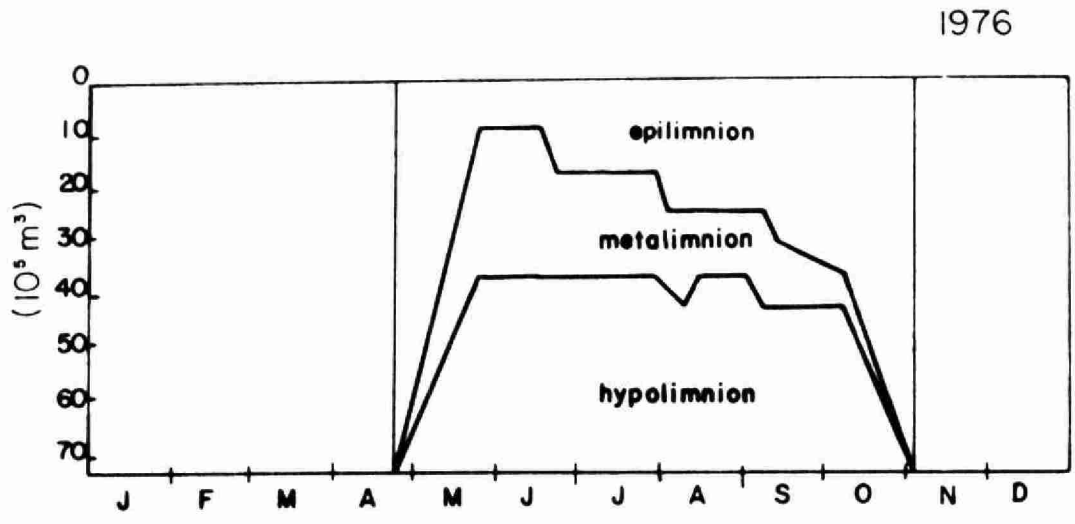


FIGURE 38

RED CHALK LAKE (main) - VOLUME OF STRATA



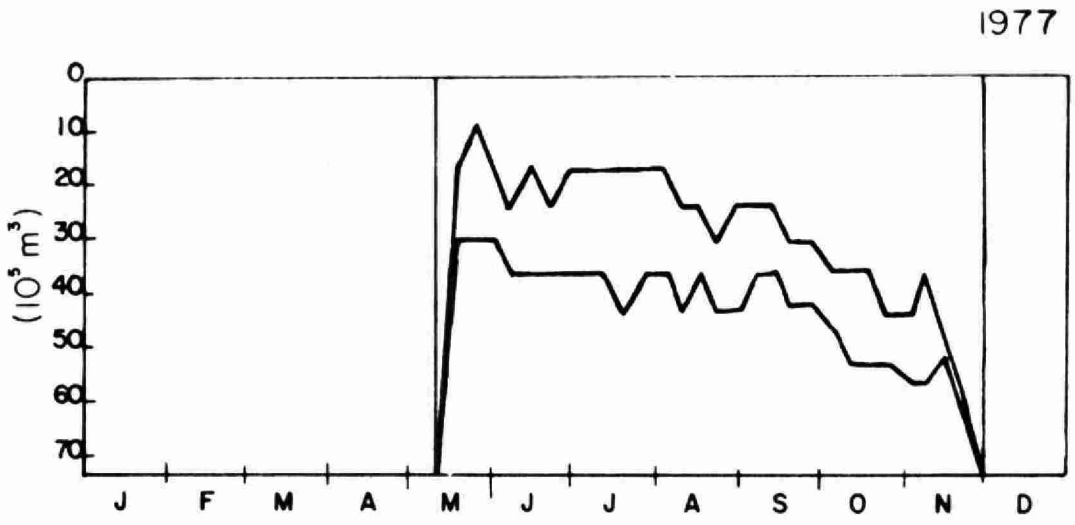


FIGURE 39

RED CHALK LAKE (main) - DEPTH OF STRATA

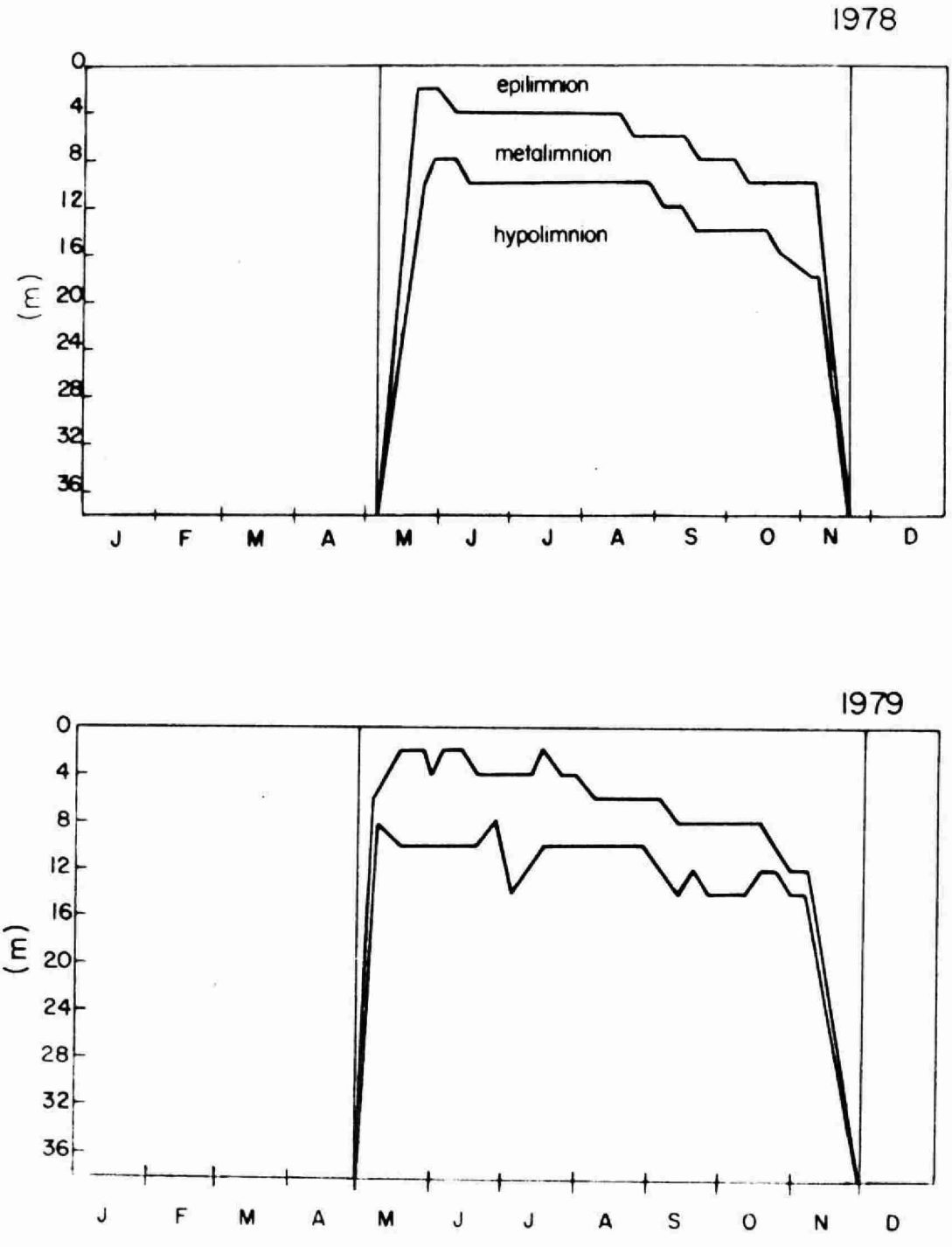


FIGURE 40

RED CHALK LAKE (main) - VOLUME OF STRATA

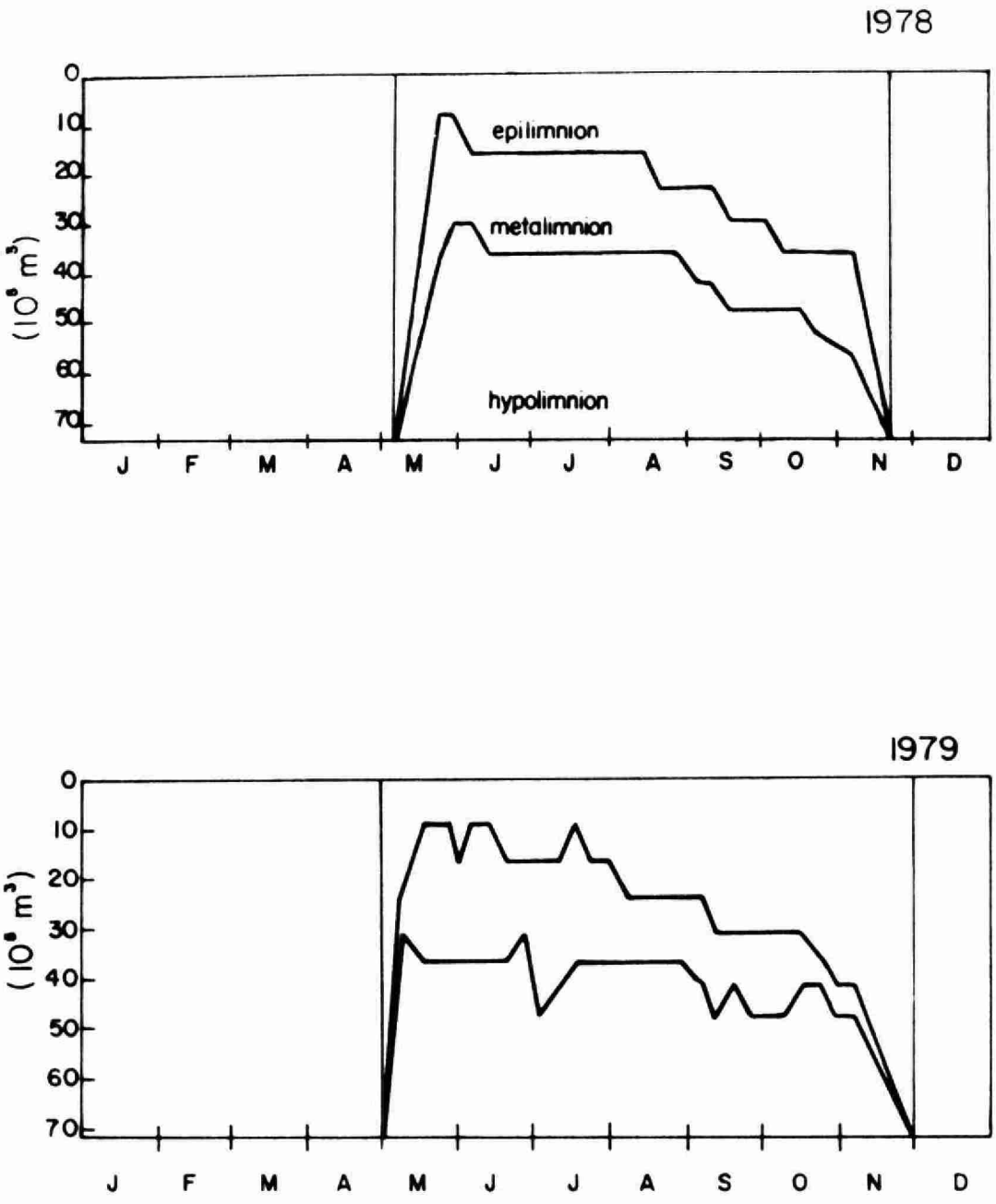


FIGURE 41

RED CHALK LAKE (main) - DEPTH OF STRATA

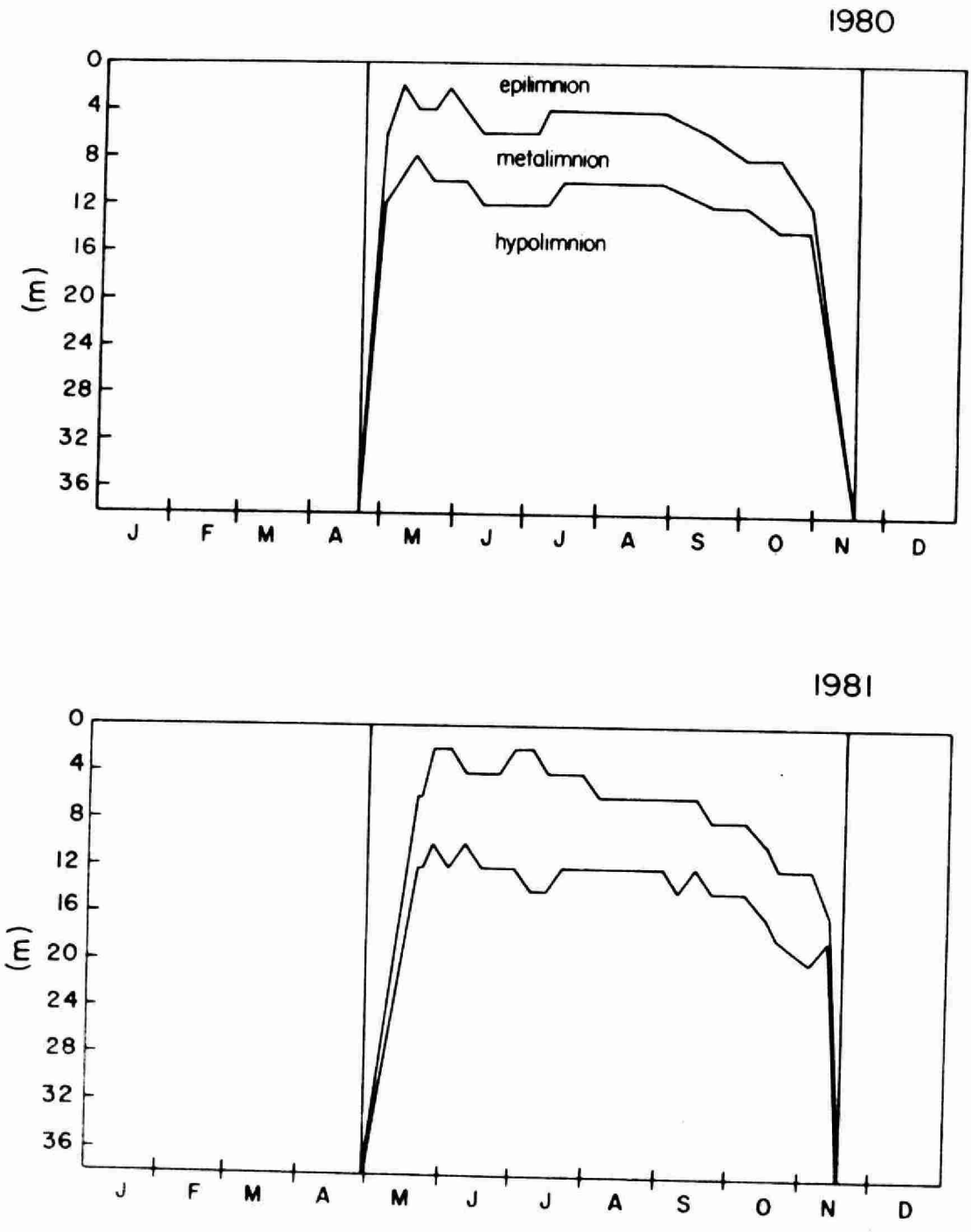


FIGURE 42

RED CHALK LAKE (main) - VOLUME OF STRATA

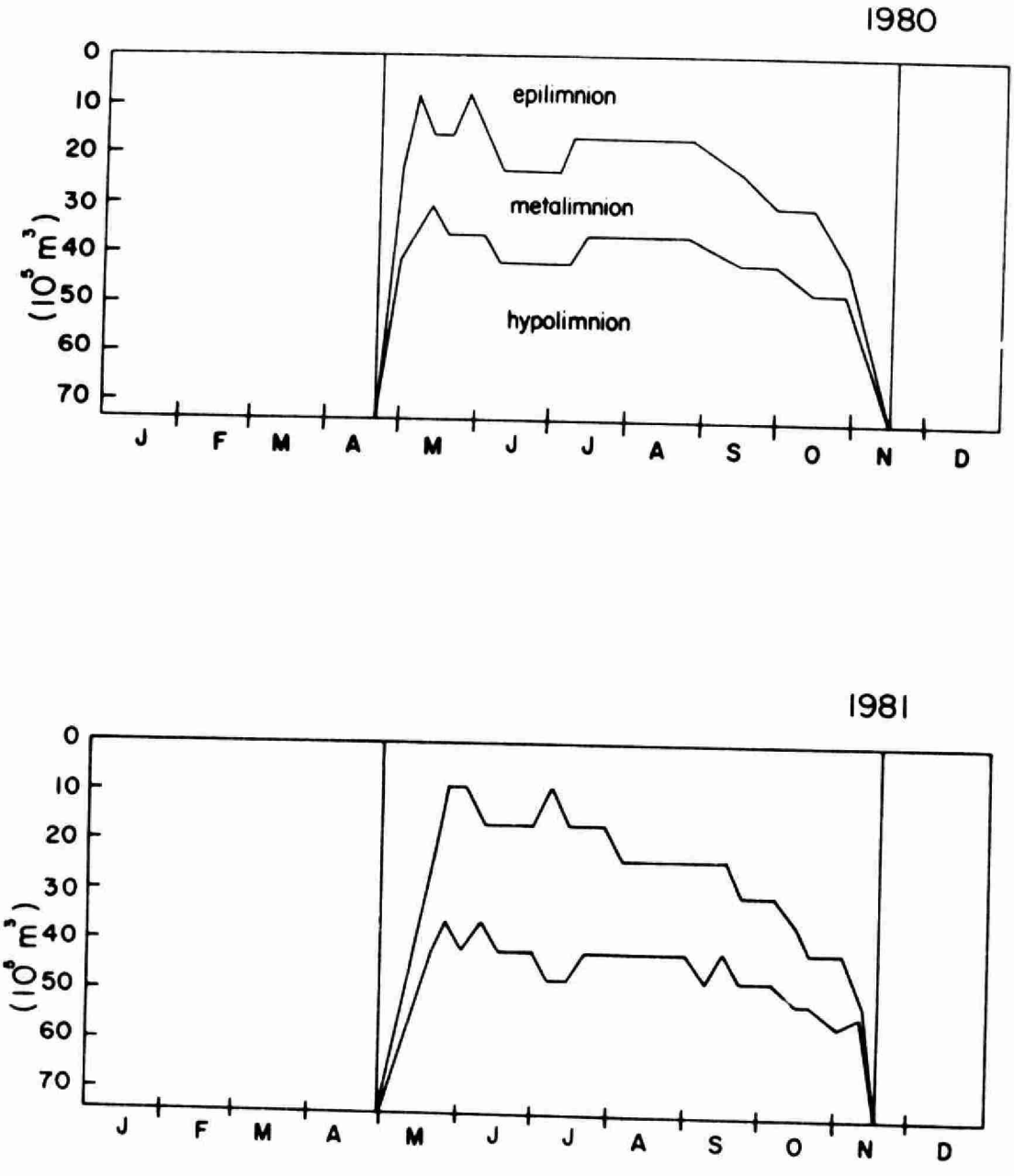


FIGURE 43

RED CHALK LAKE (main) - DEPTH OF STRATA

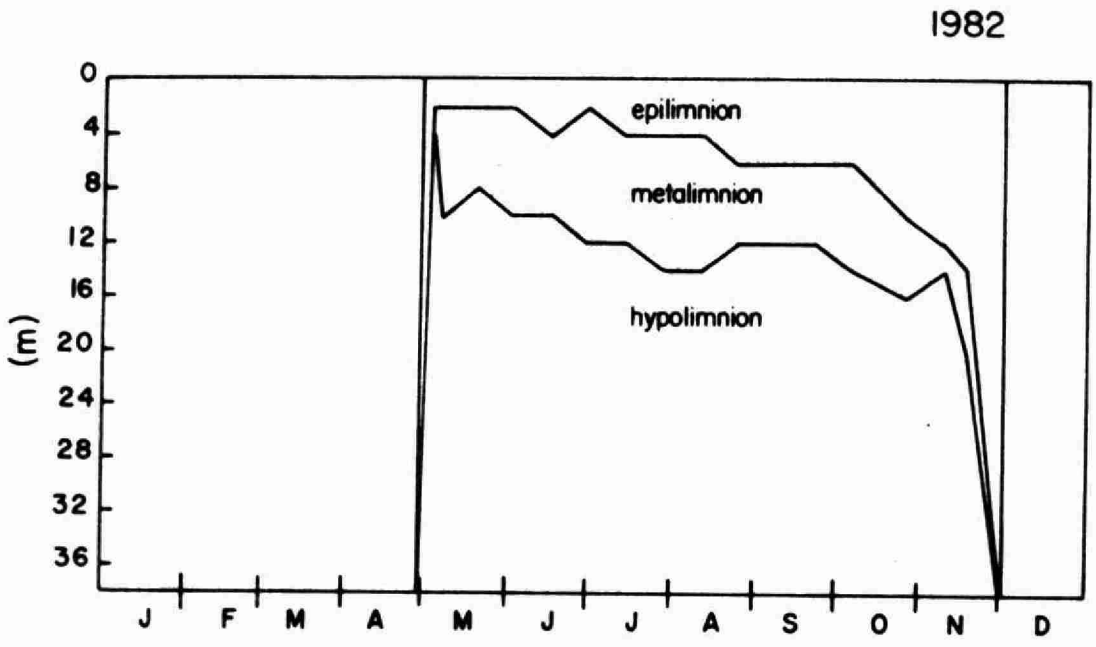


FIGURE 44

RED CHALK LAKE (main) - VOLUME OF STRATA

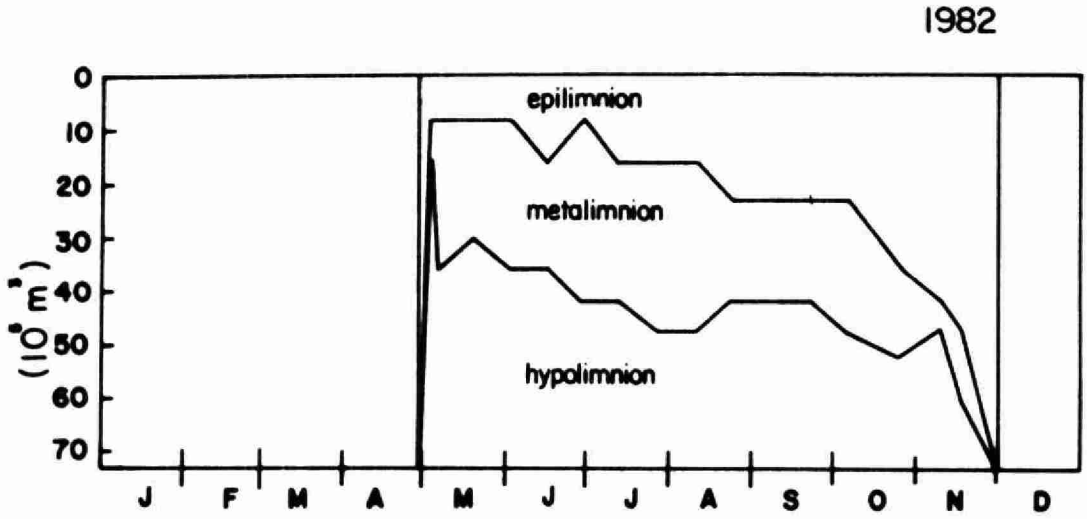


FIGURE 45

RED CHALK LAKE (east) - DEPTH OF STRATA

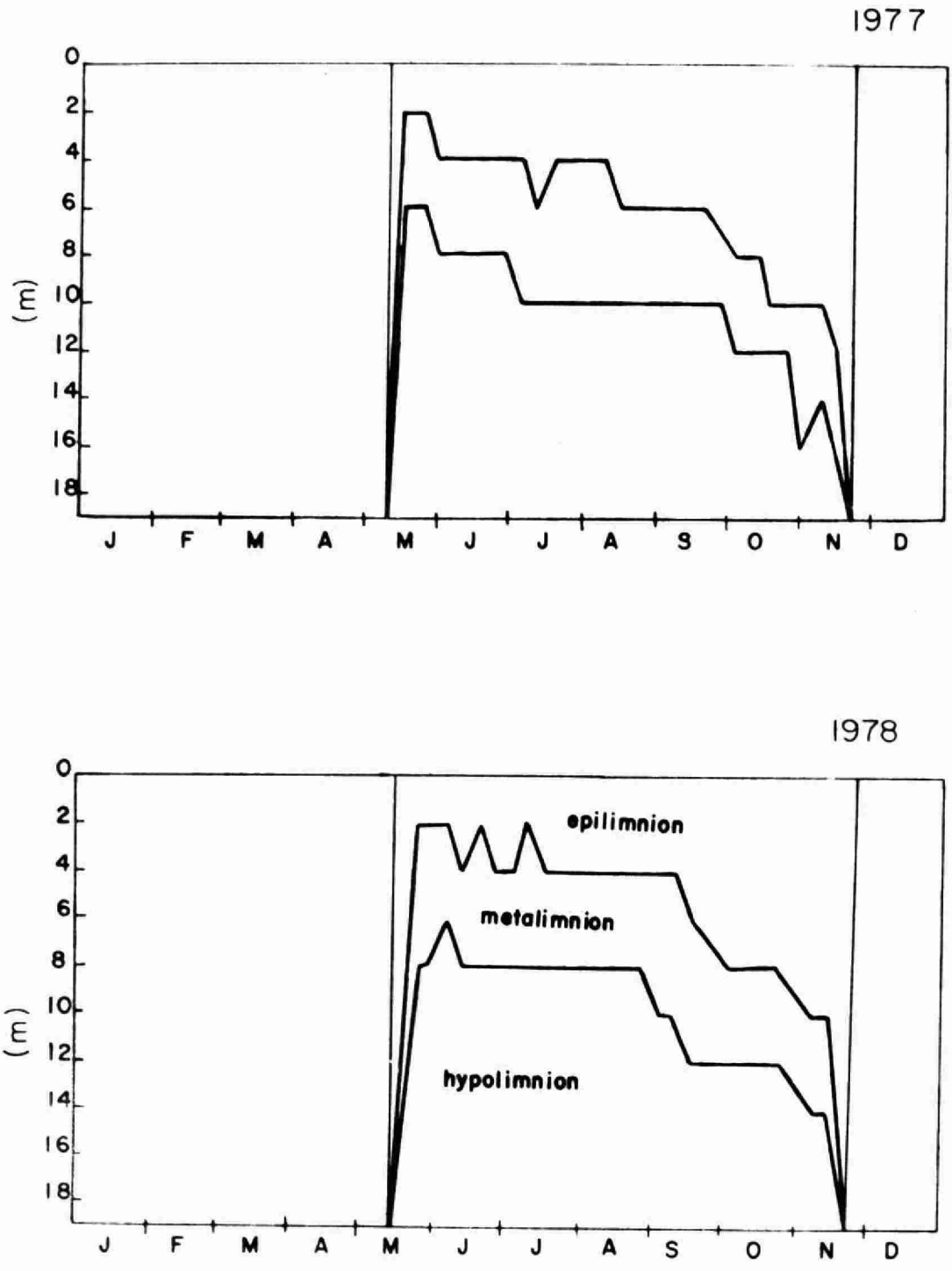


FIGURE 46

RED CHALK LAKE (east) - VOLUME OF STRATA

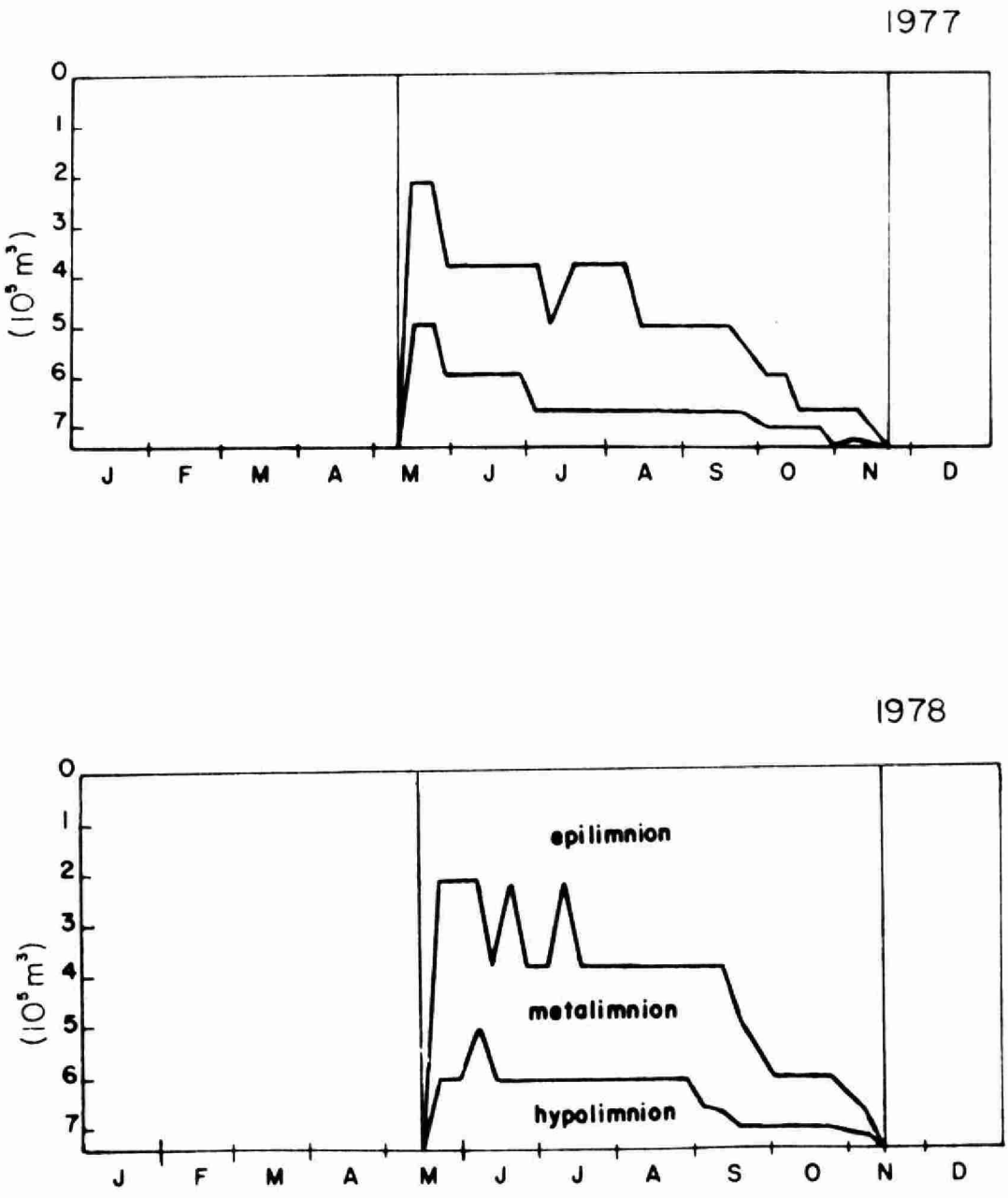


FIGURE 47

RED CHALK LAKE (east) - DEPTH OF STRATA

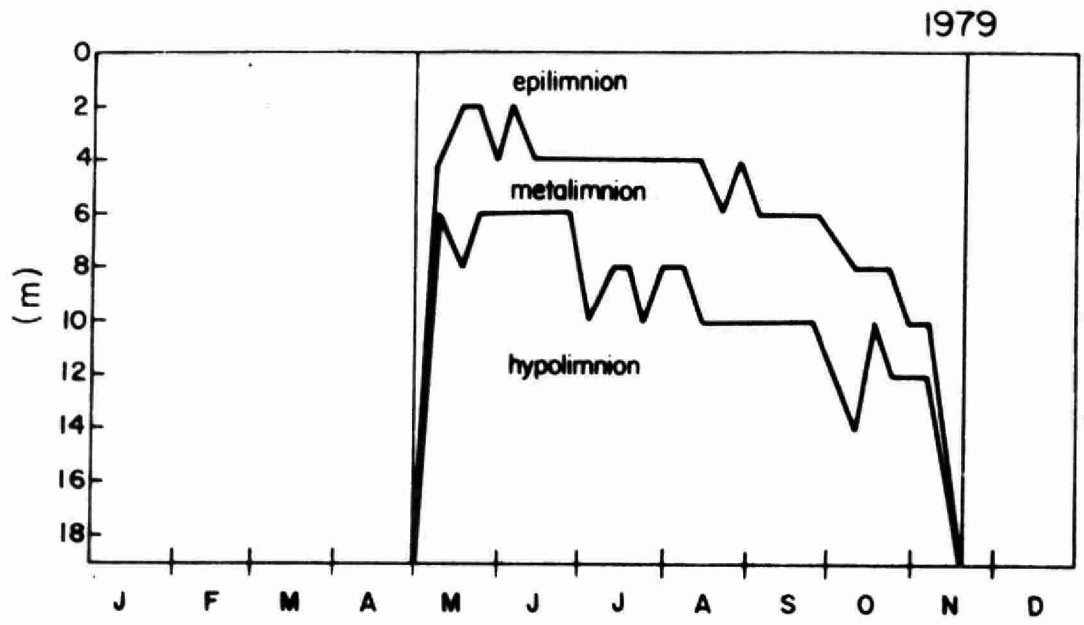


FIGURE 48

RED CHALK LAKE (east) - VOLUME OF STRATA

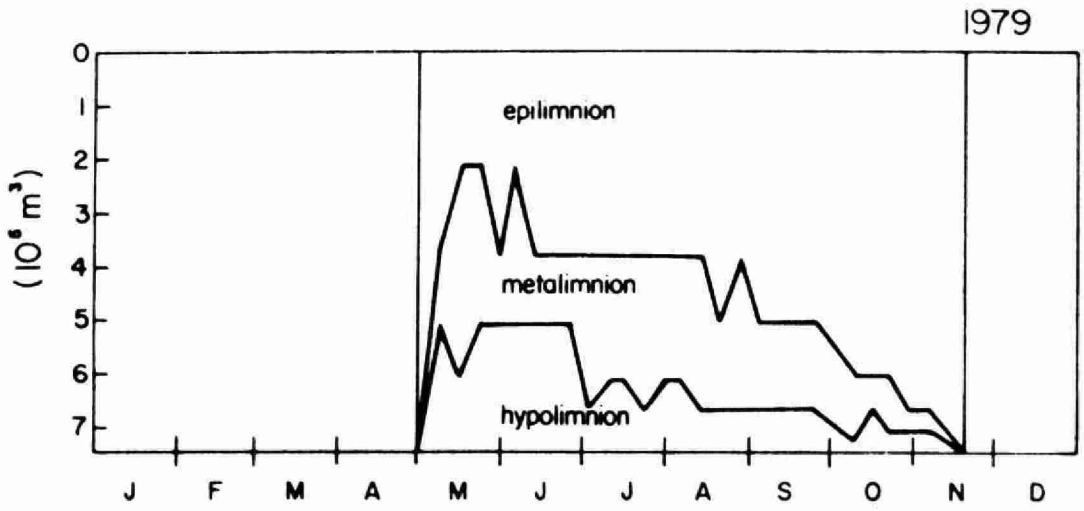


FIGURE 49

BASSHAUNT LAKE - DEPTH OF STRATA

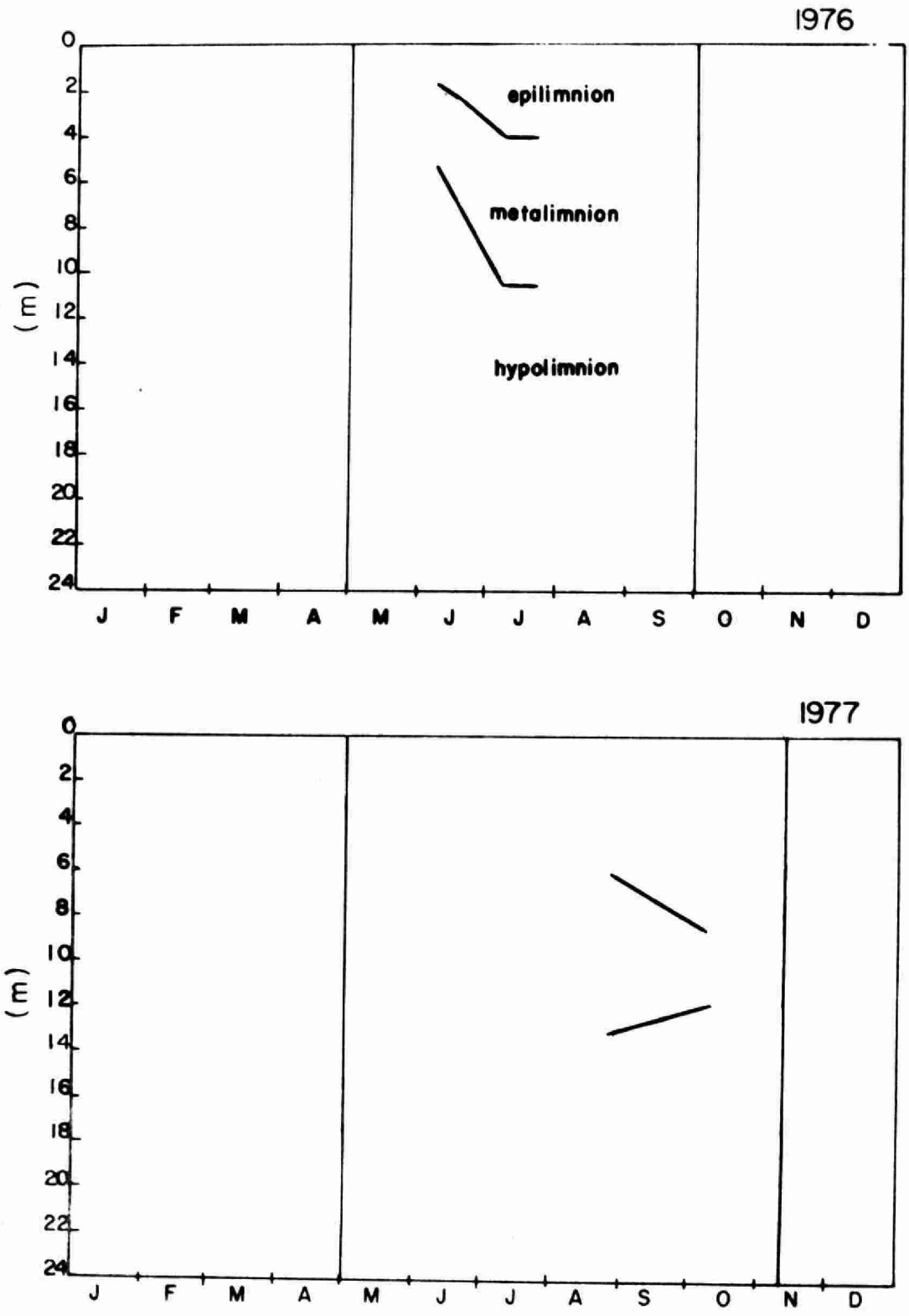


FIGURE 50

BASSHAUNT LAKE - VOLUME OF STRATA

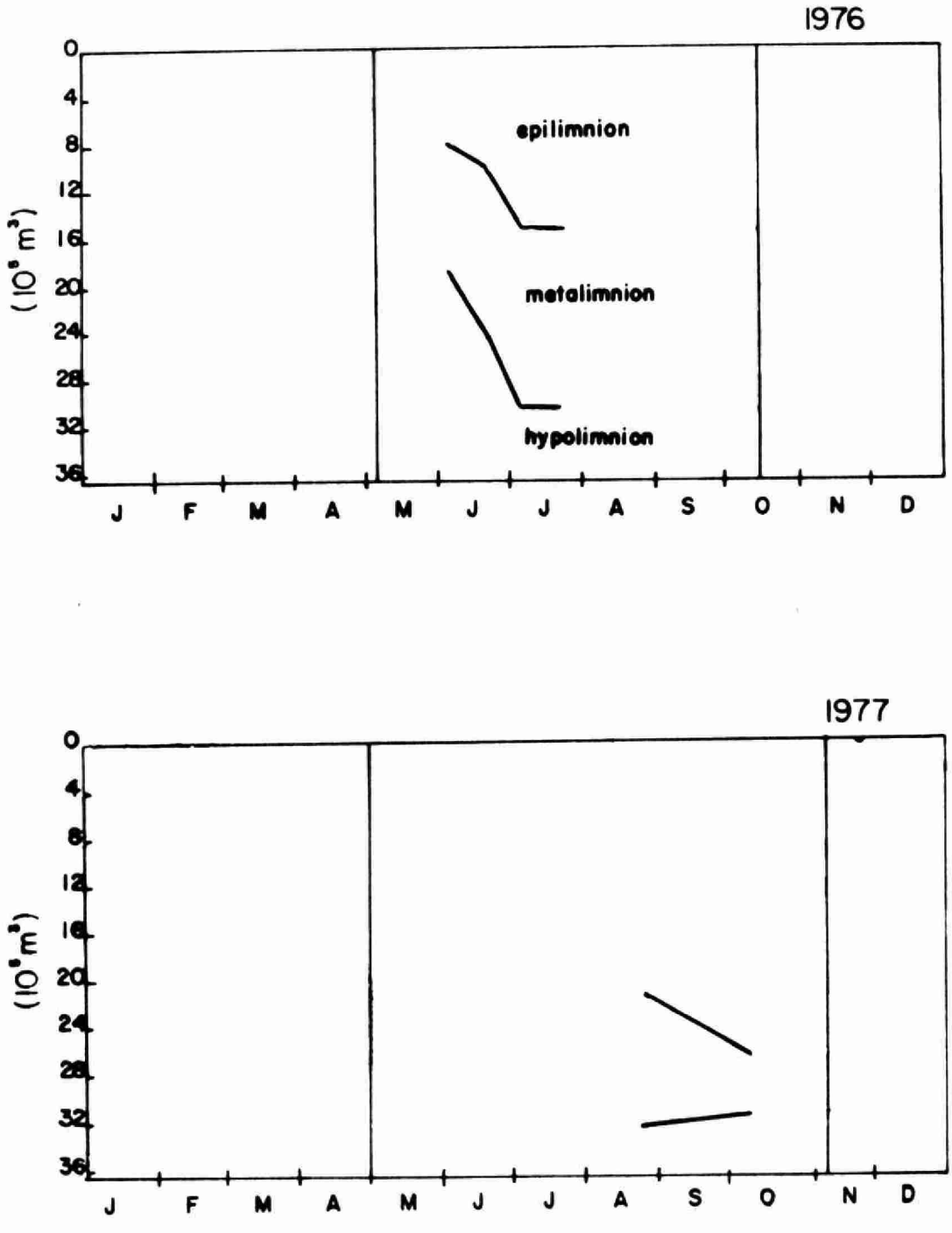


FIGURE 51

BASSHAUNT LAKE - DEPTH OF STRATA

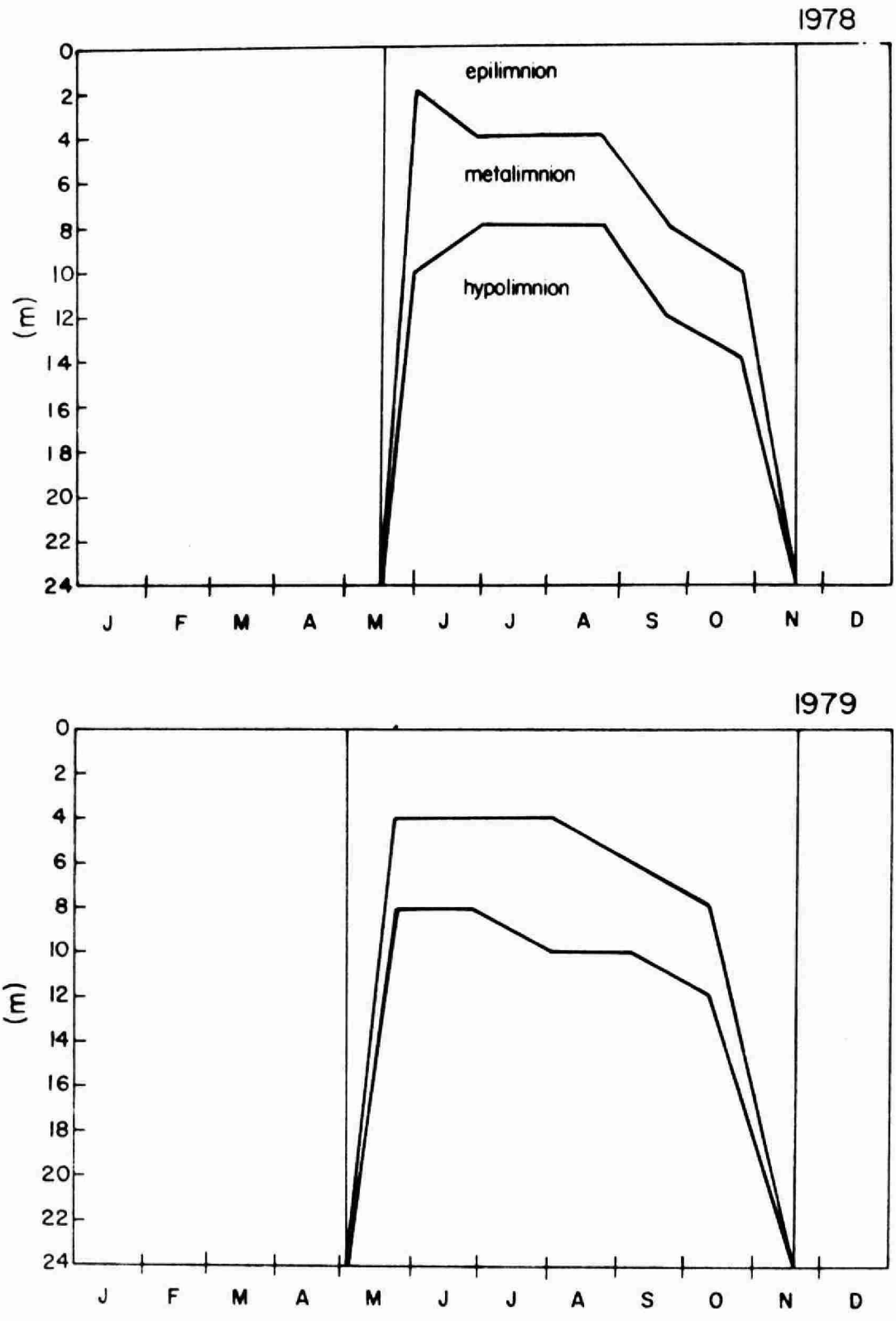
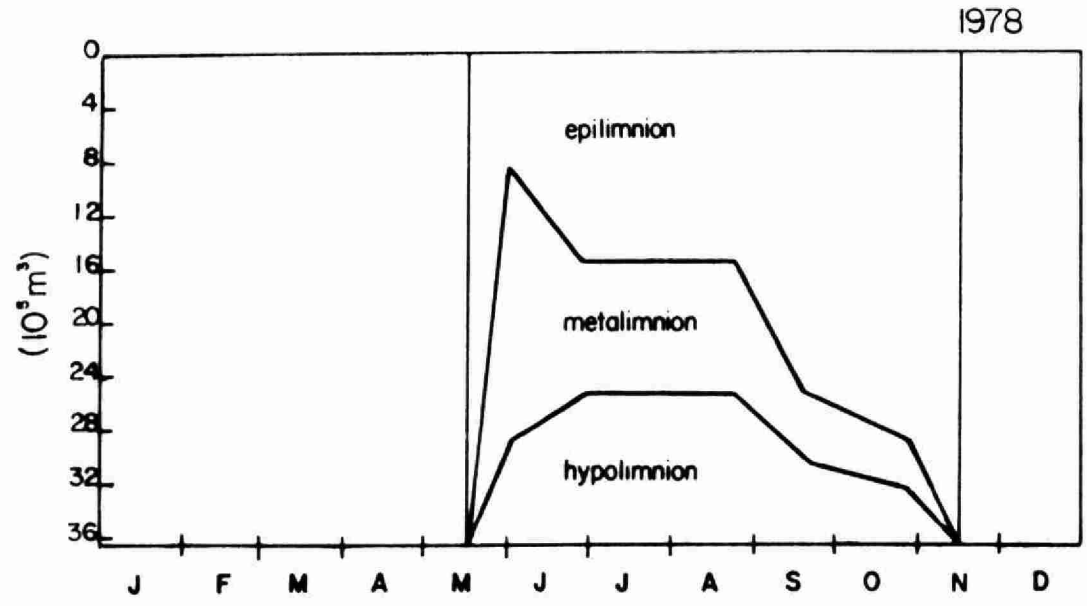


FIGURE 52

BASSHAUNT LAKE - VOLUME OF STRATA



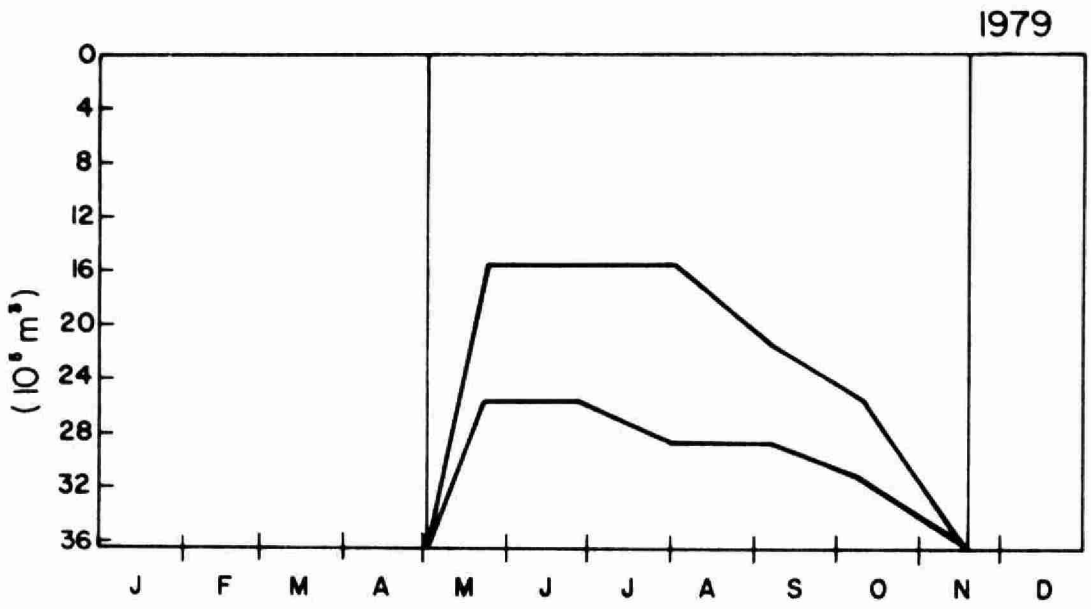


FIGURE 53

BASSHAUNT LAKE - DEPTH OF STRATA

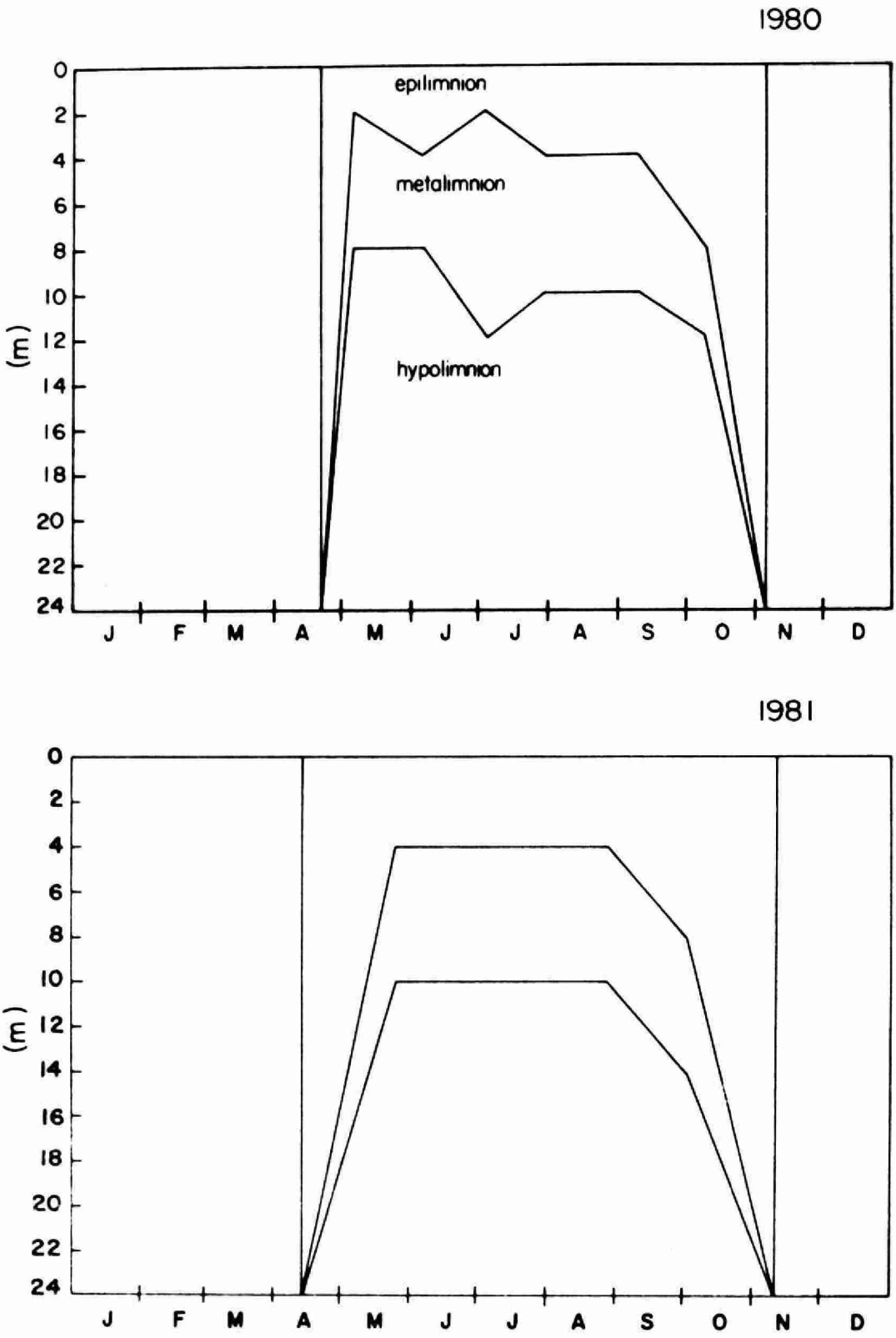


FIGURE 54

BASSHAUNT LAKE - VOLUME OF STRATA

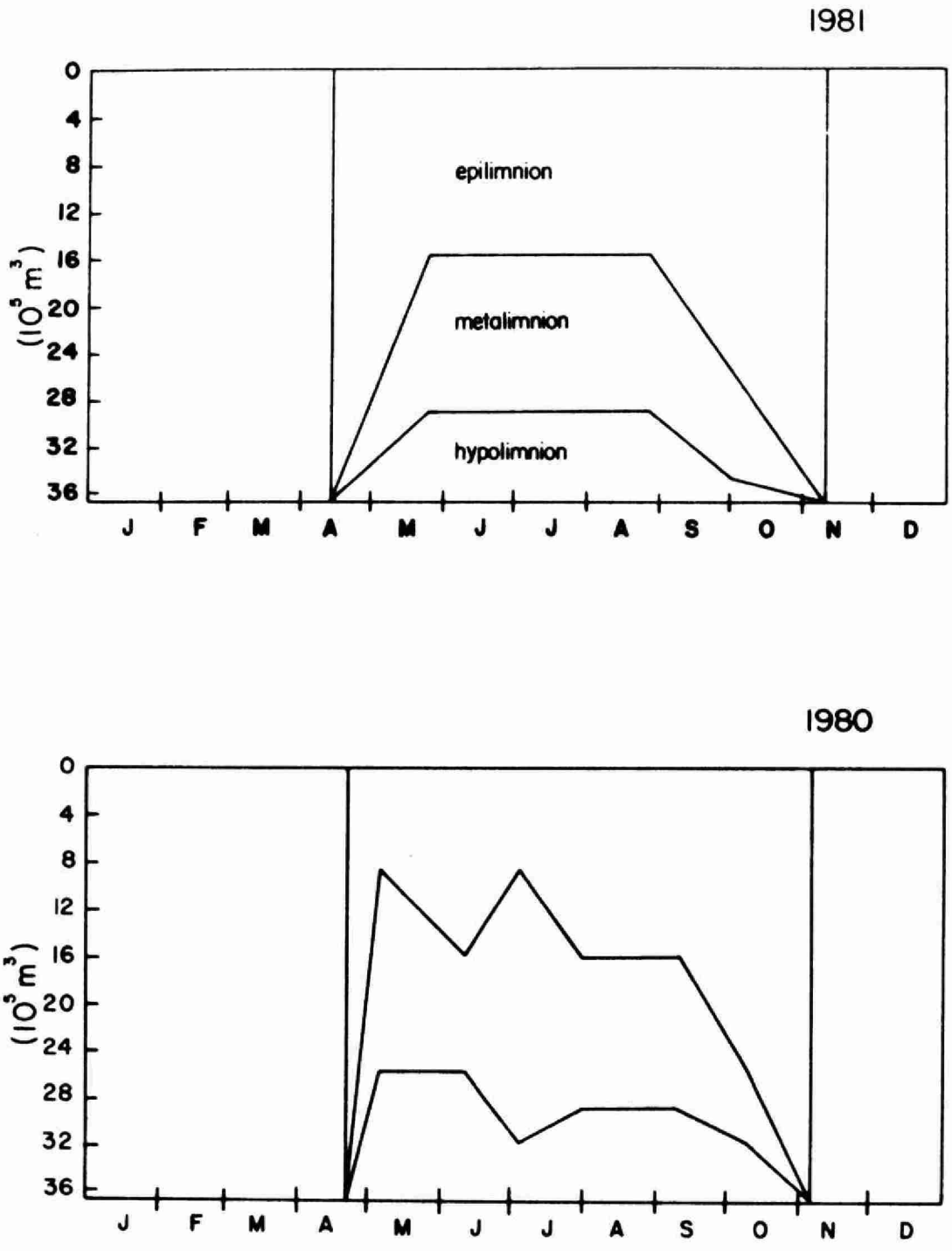


FIGURE 55

BIGWIND LAKE - DEPTH OF STRATA

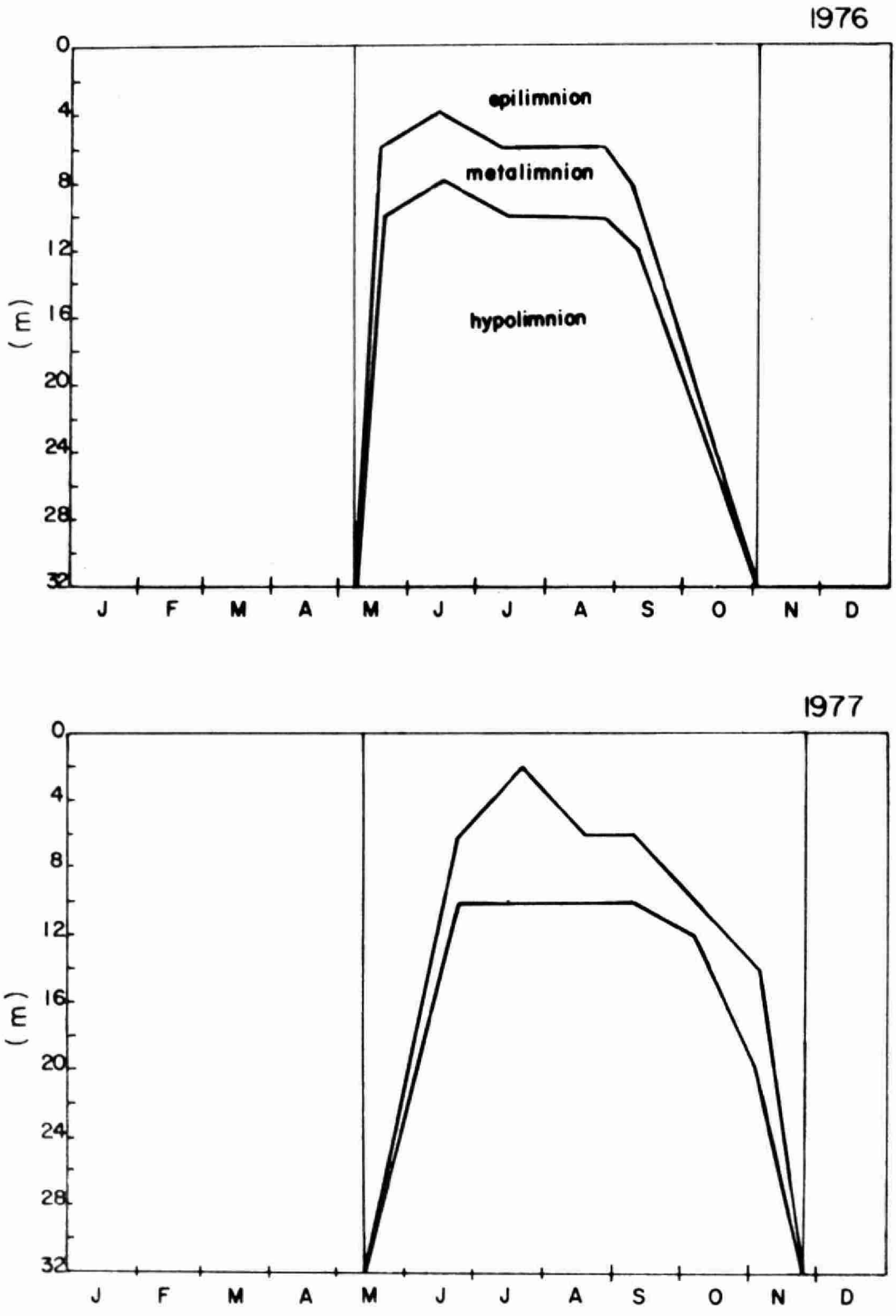


FIGURE 56

BIGWIND LAKE - VOLUME OF STRATA

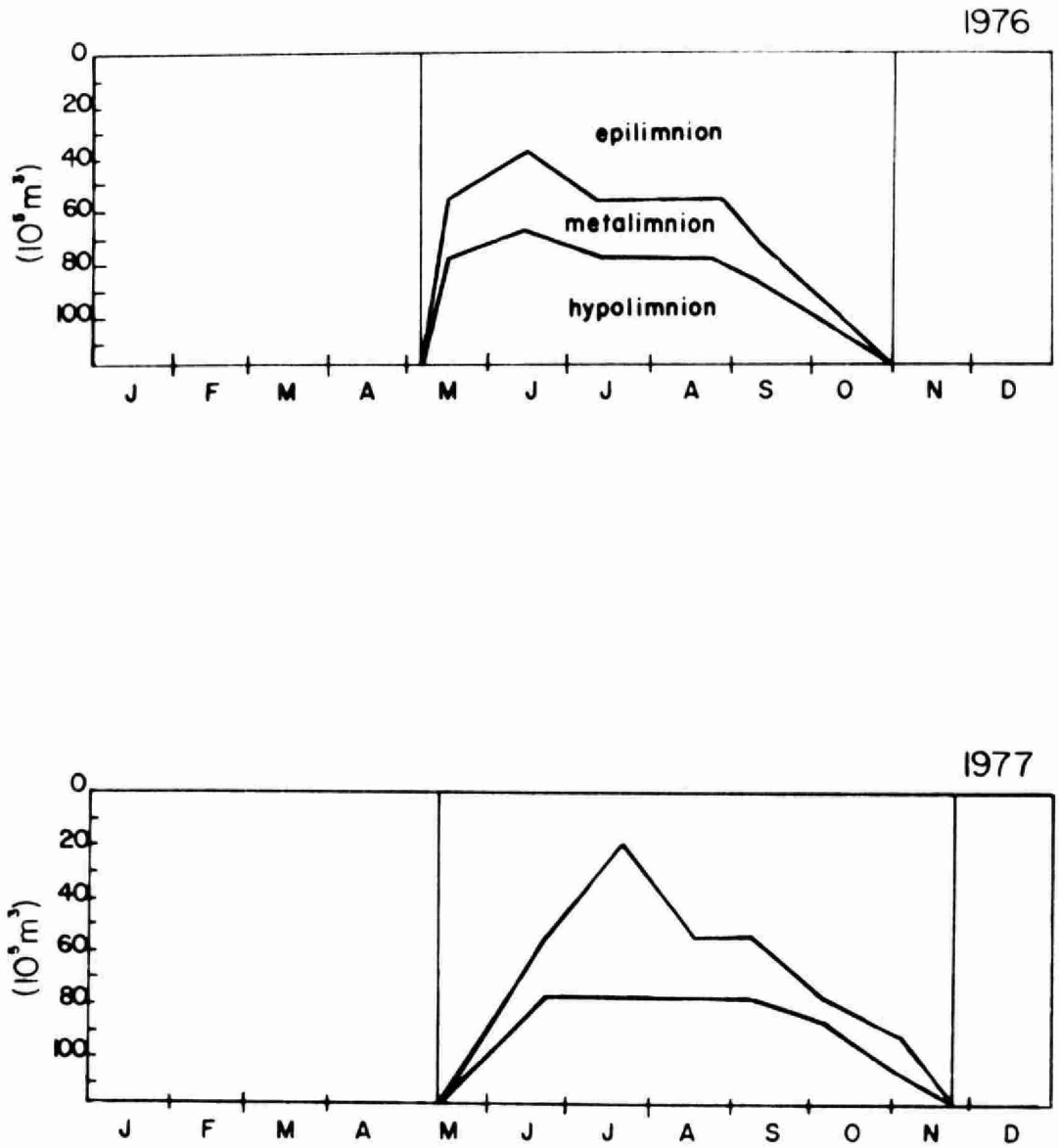


FIGURE 57

BIGWIND LAKE - DEPTH OF STRATA

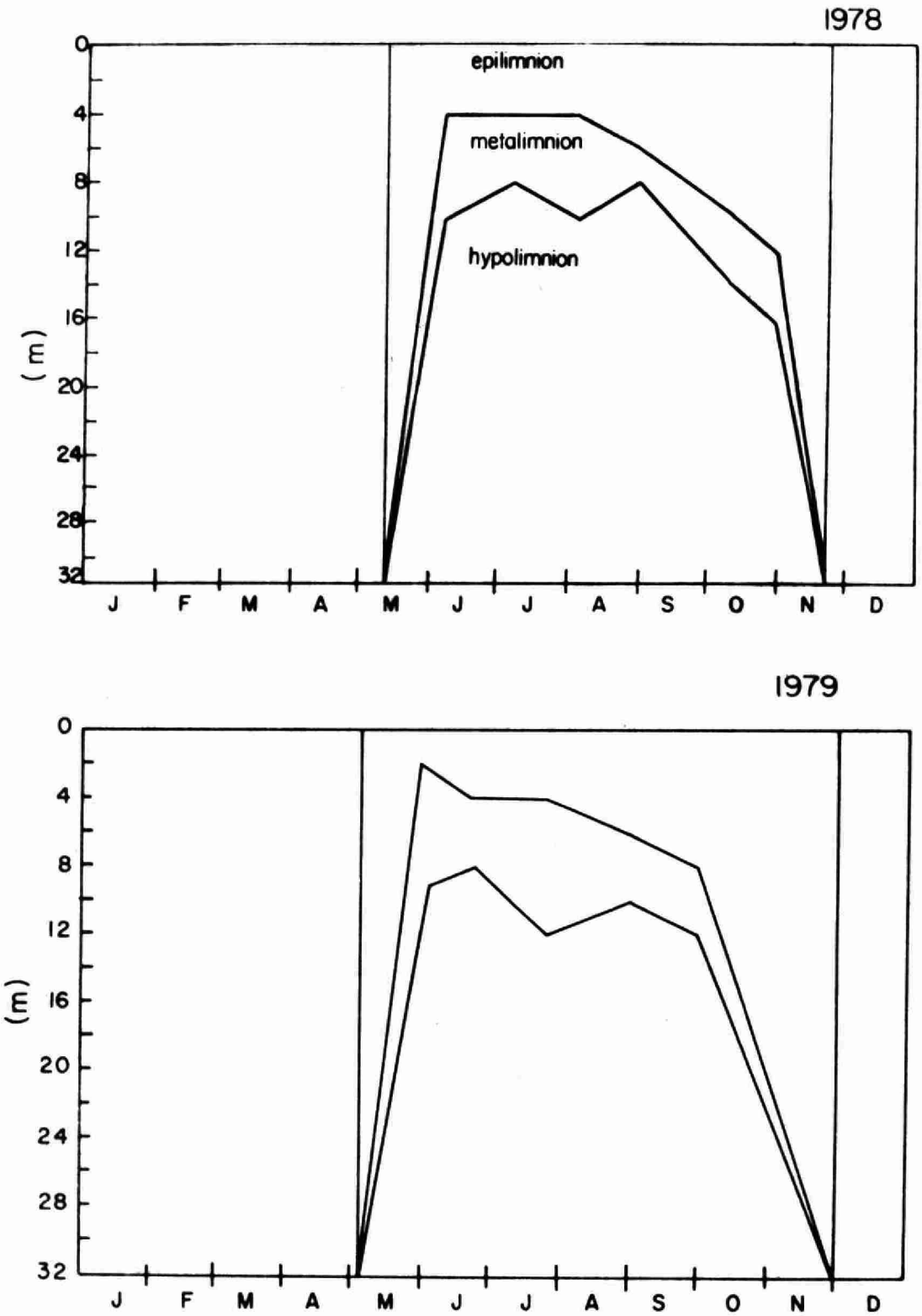


FIGURE 58

BIGWIND LAKE - VOLUME OF STRATA

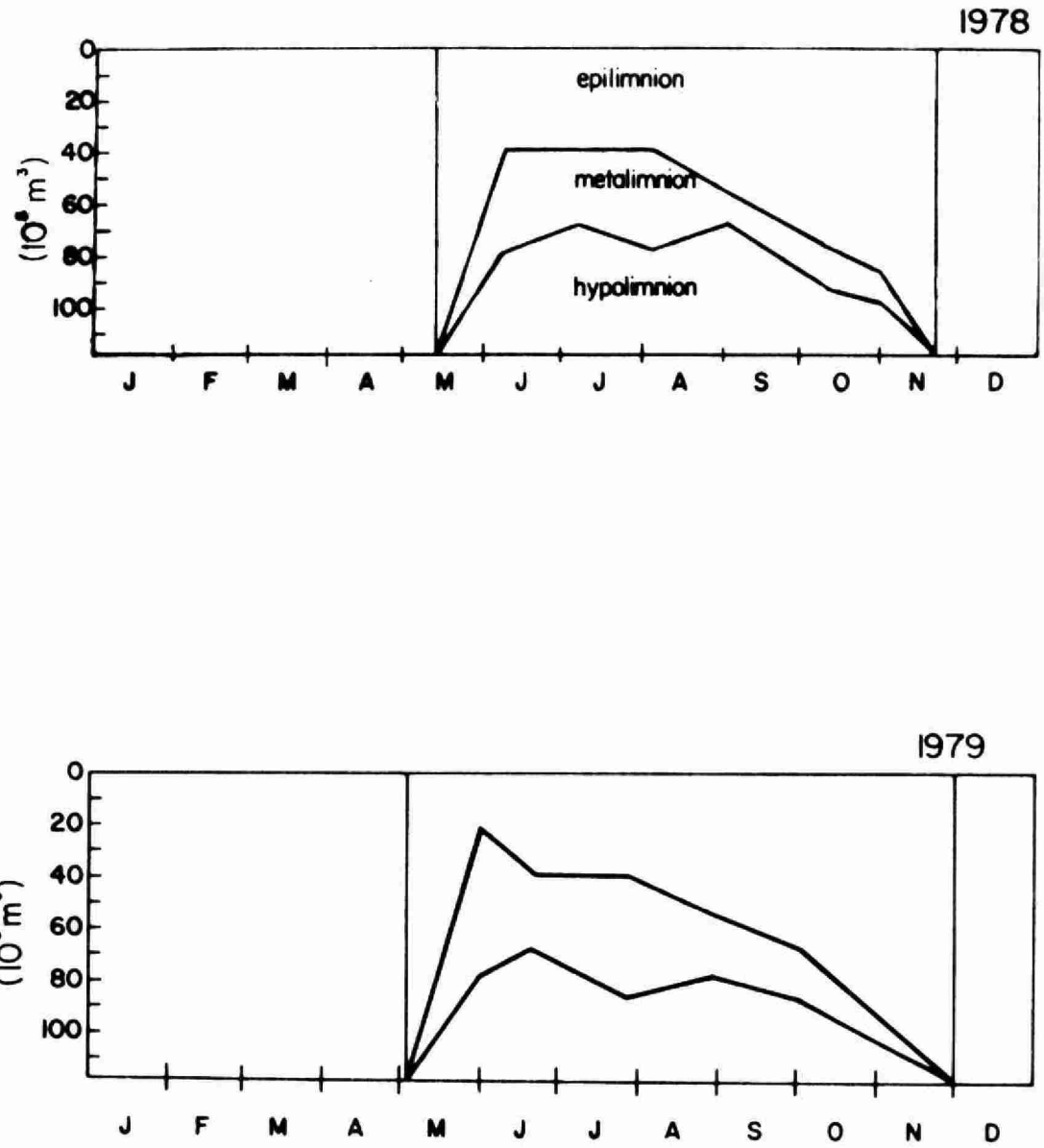


FIGURE 59

BIGWIND LAKE - DEPTH OF STRATA

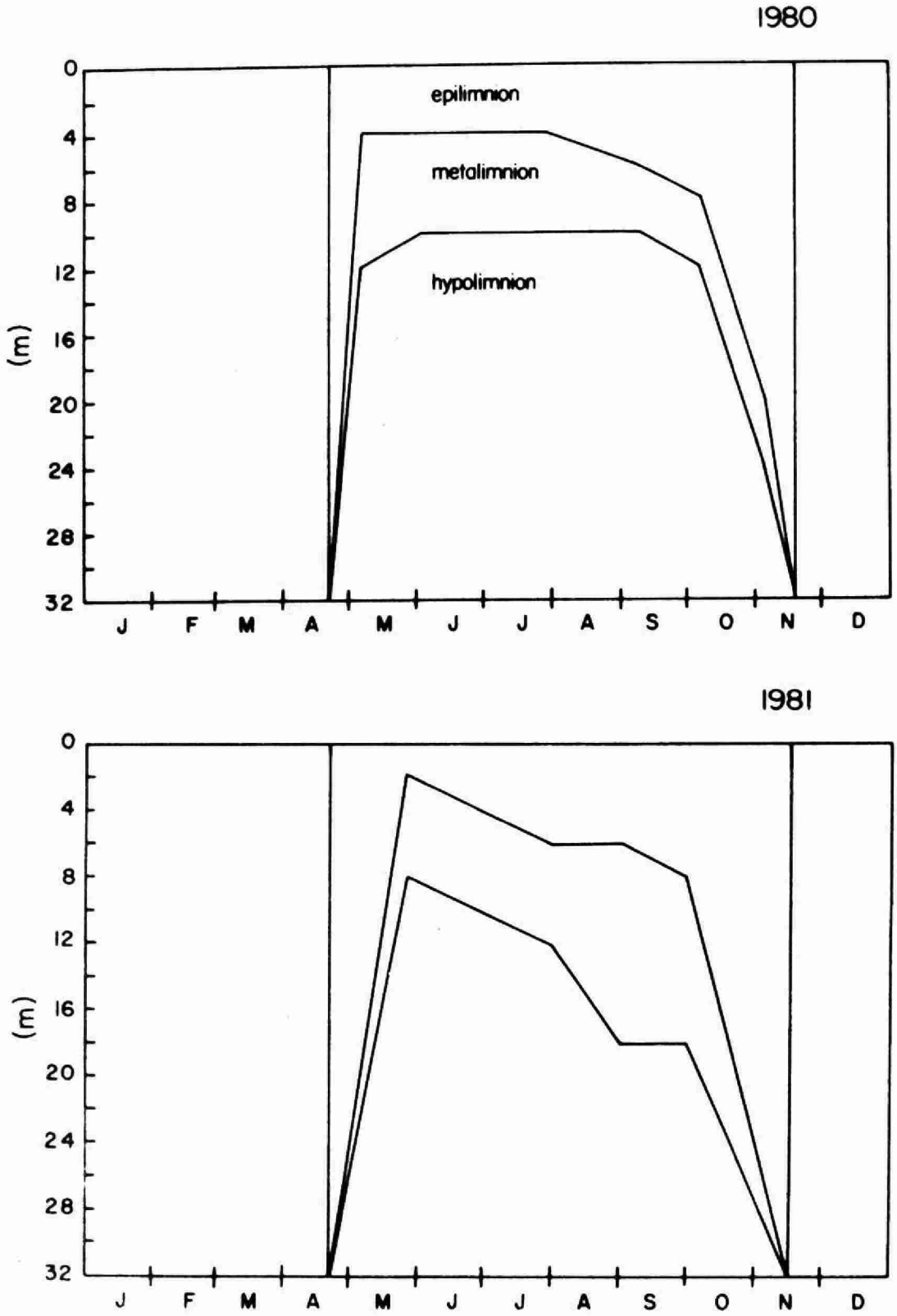
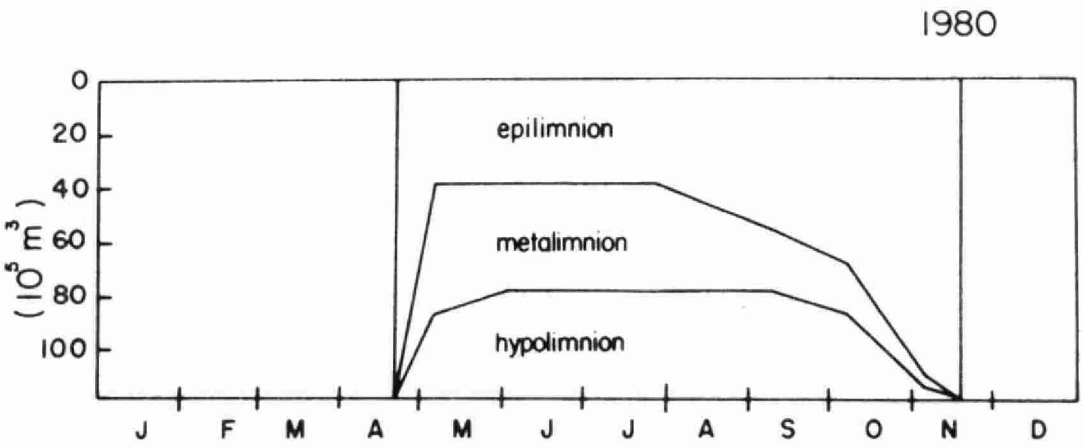


FIGURE 60

BIGWIND LAKE - VOLUME OF STRATA



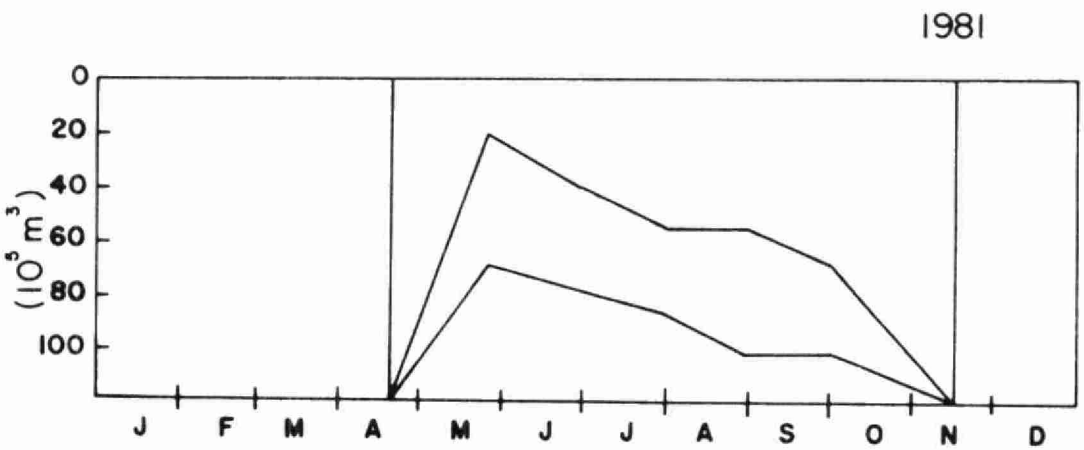


FIGURE 61

BUCK LAKE - DEPTH OF STRATA

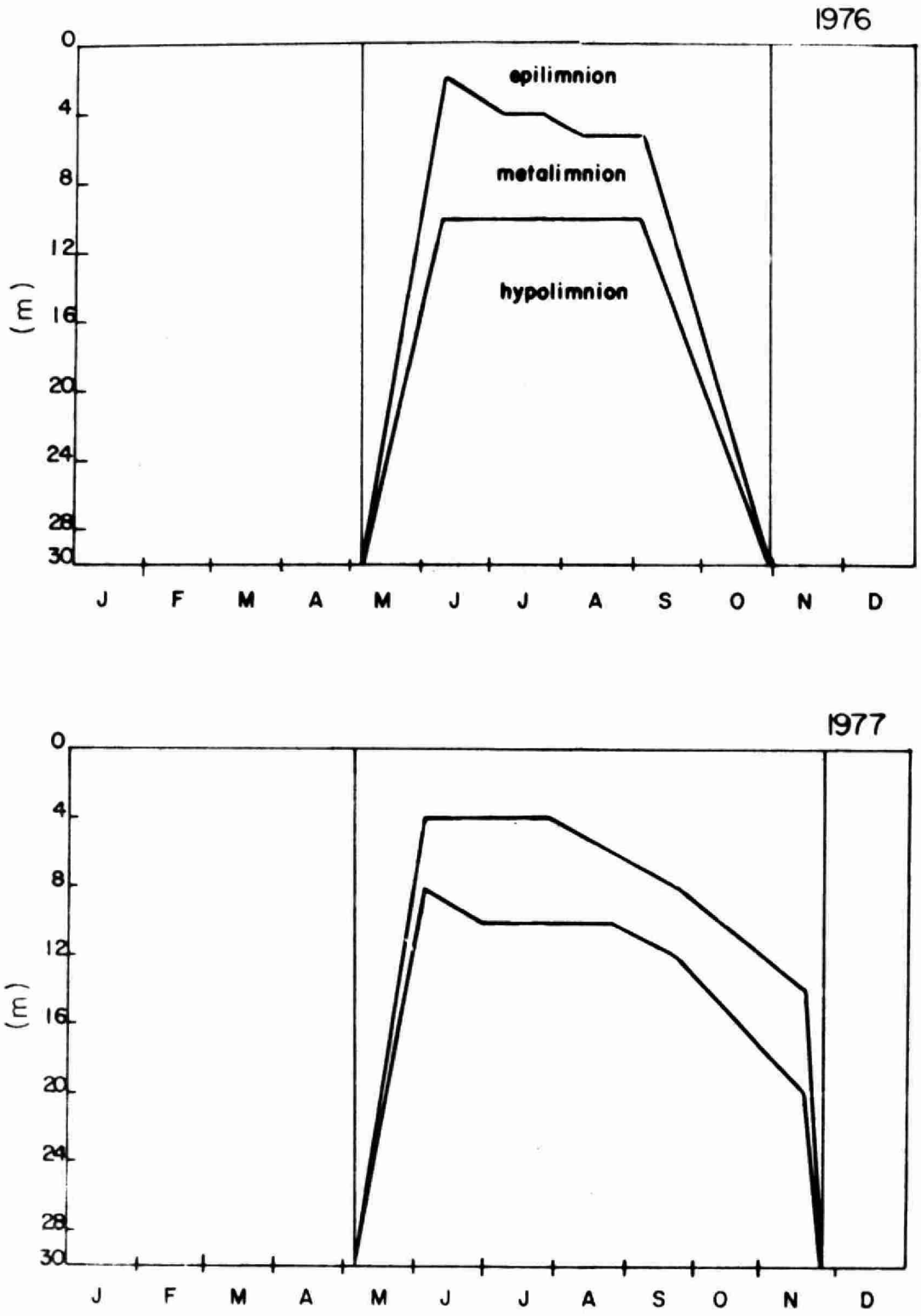


FIGURE 62

BUCK LAKE - VOLUME OF STRATA

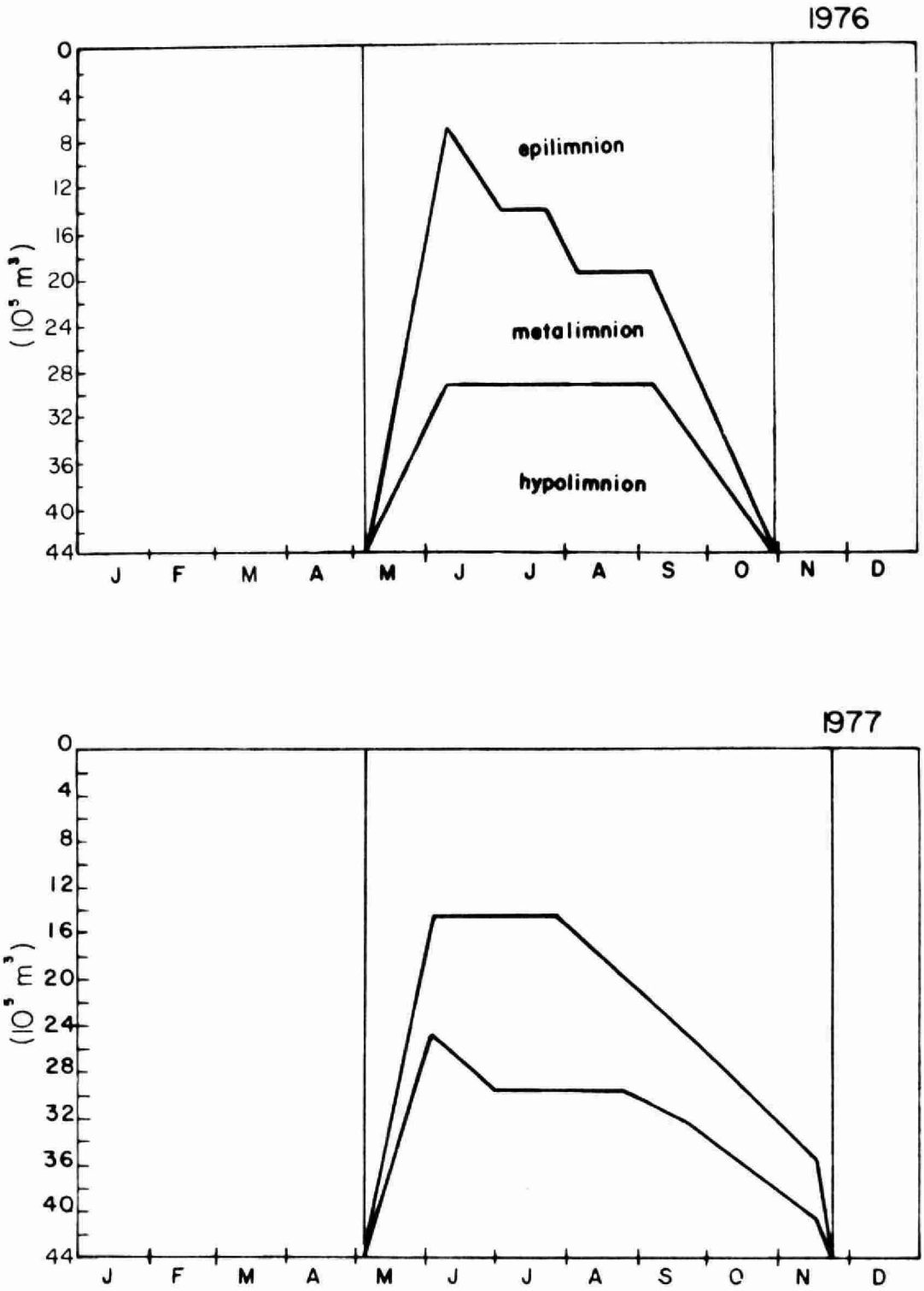


FIGURE 63

BUCK LAKE - DEPTH OF STRATA

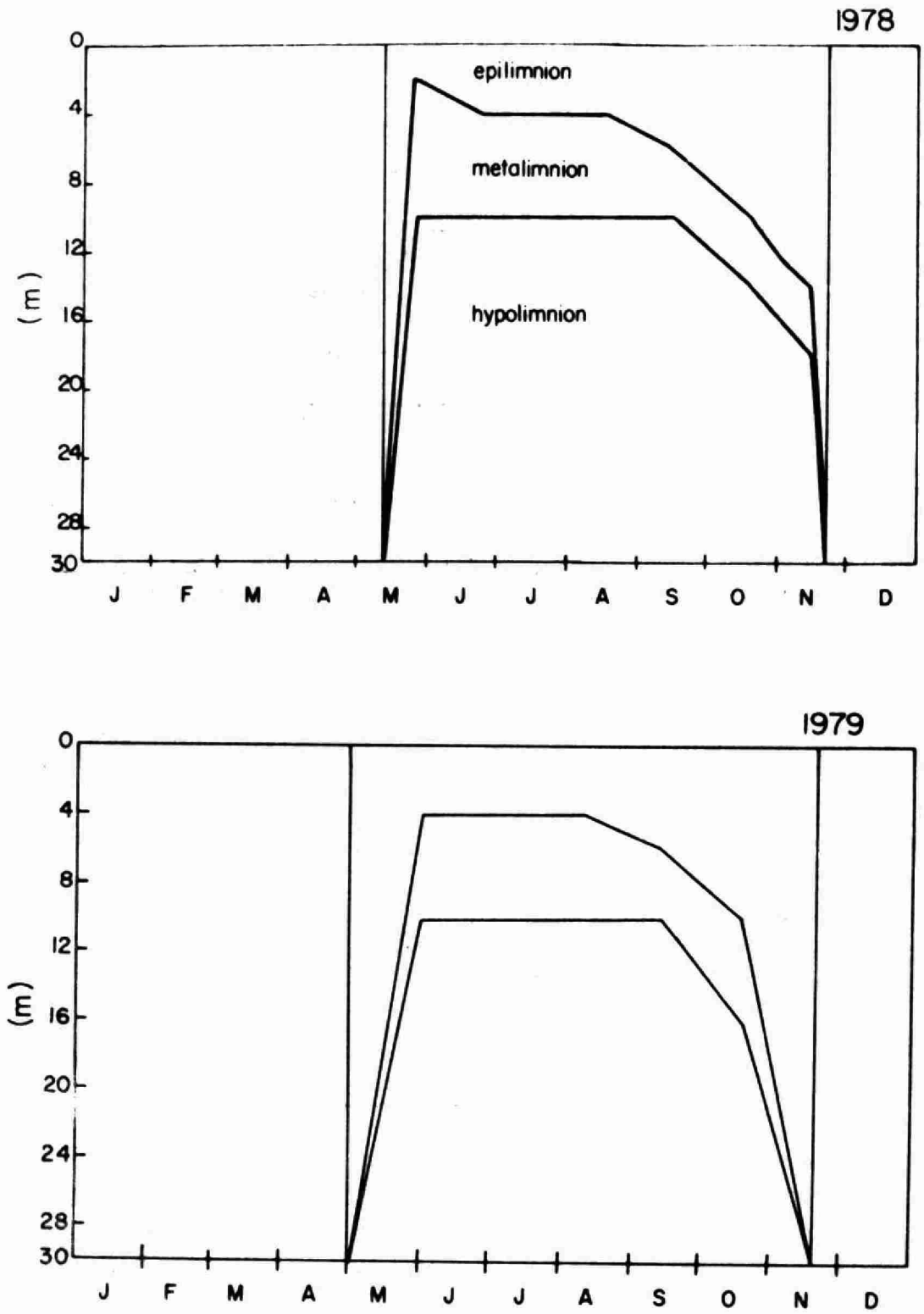


FIGURE 64

BUCK LAKE - VOLUME OF STRATA

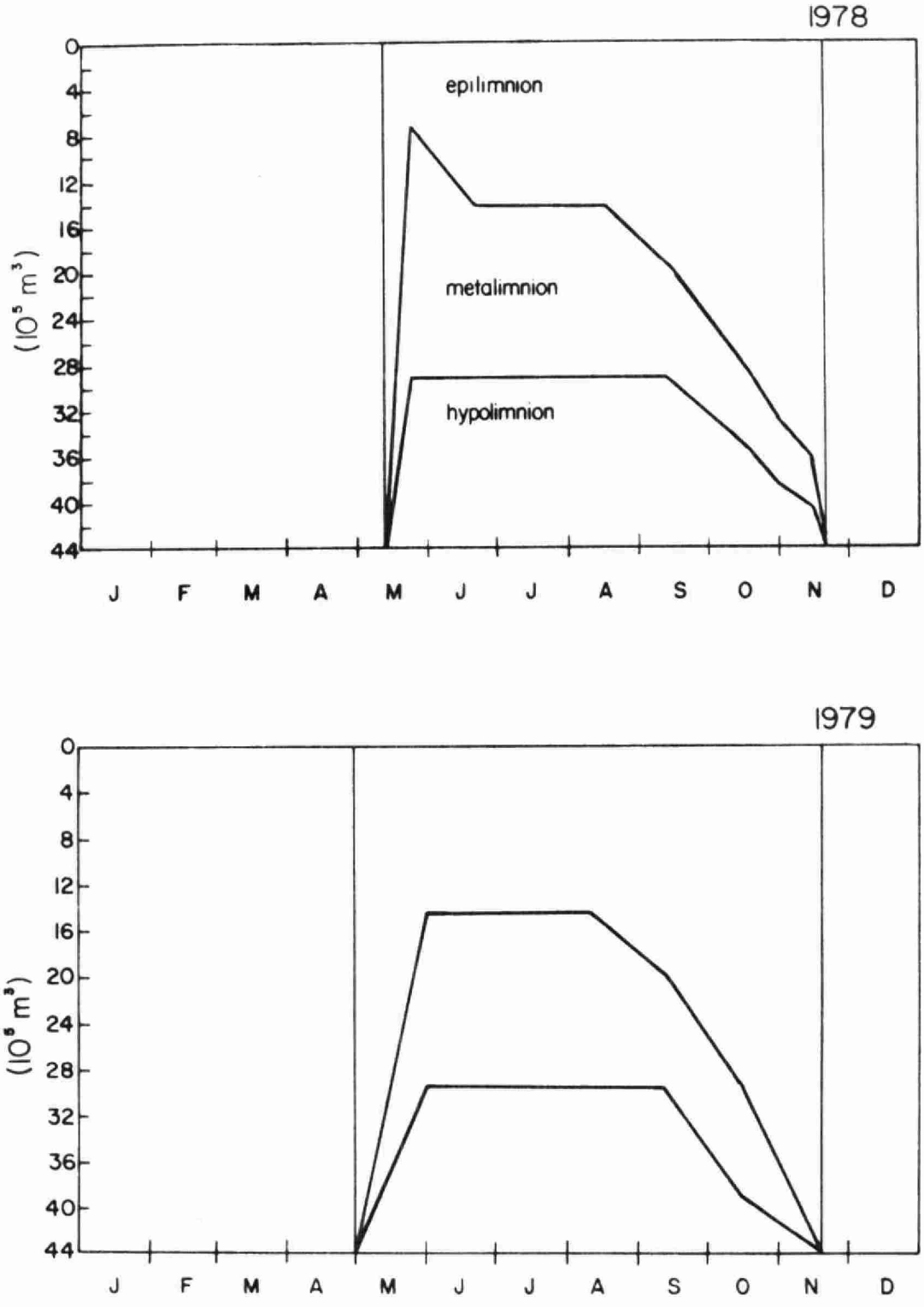


FIGURE 65

BUCK LAKE - DEPTH OF STRATA

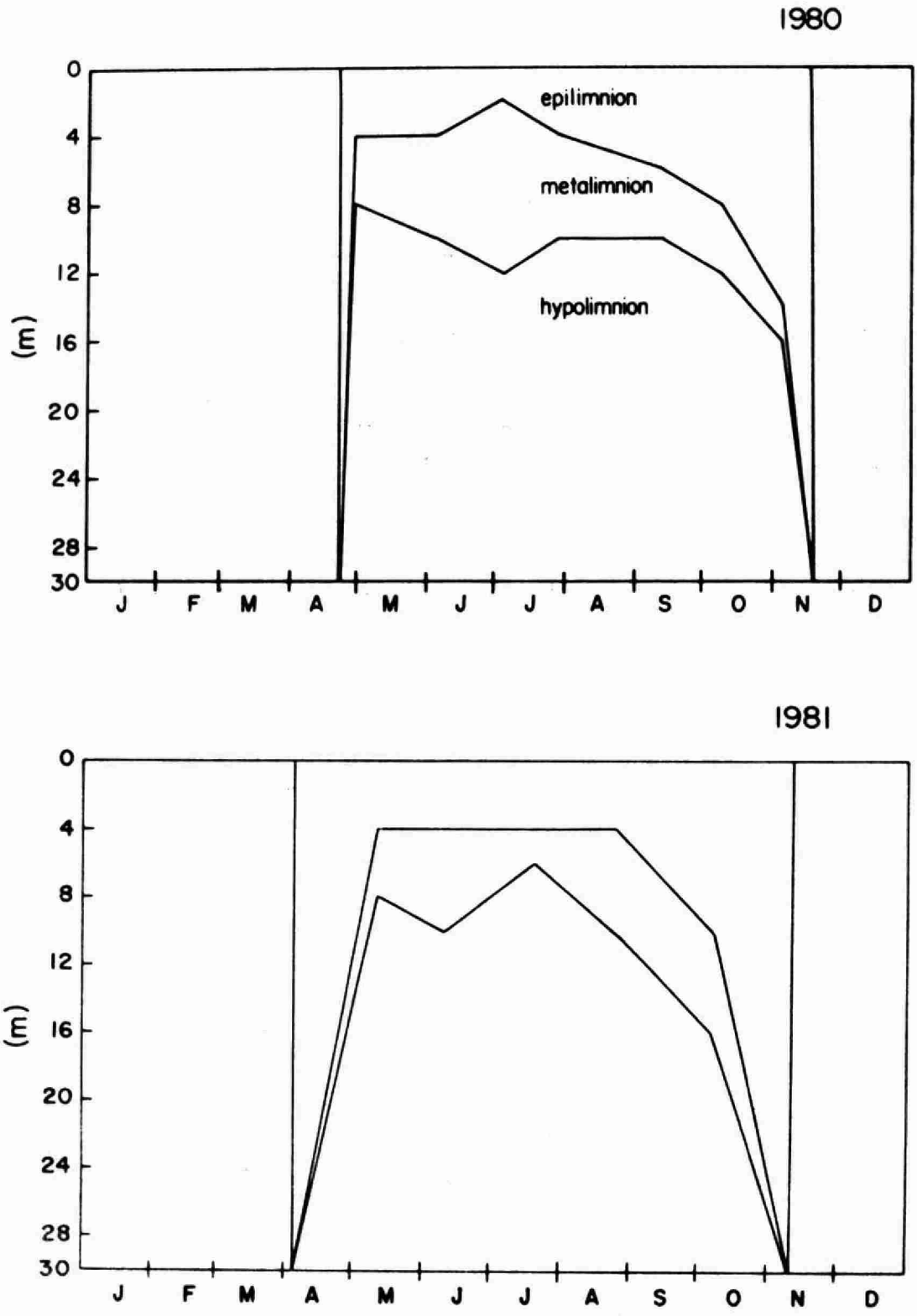


FIGURE 66

BUCK LAKE - VOLUME OF STRATA

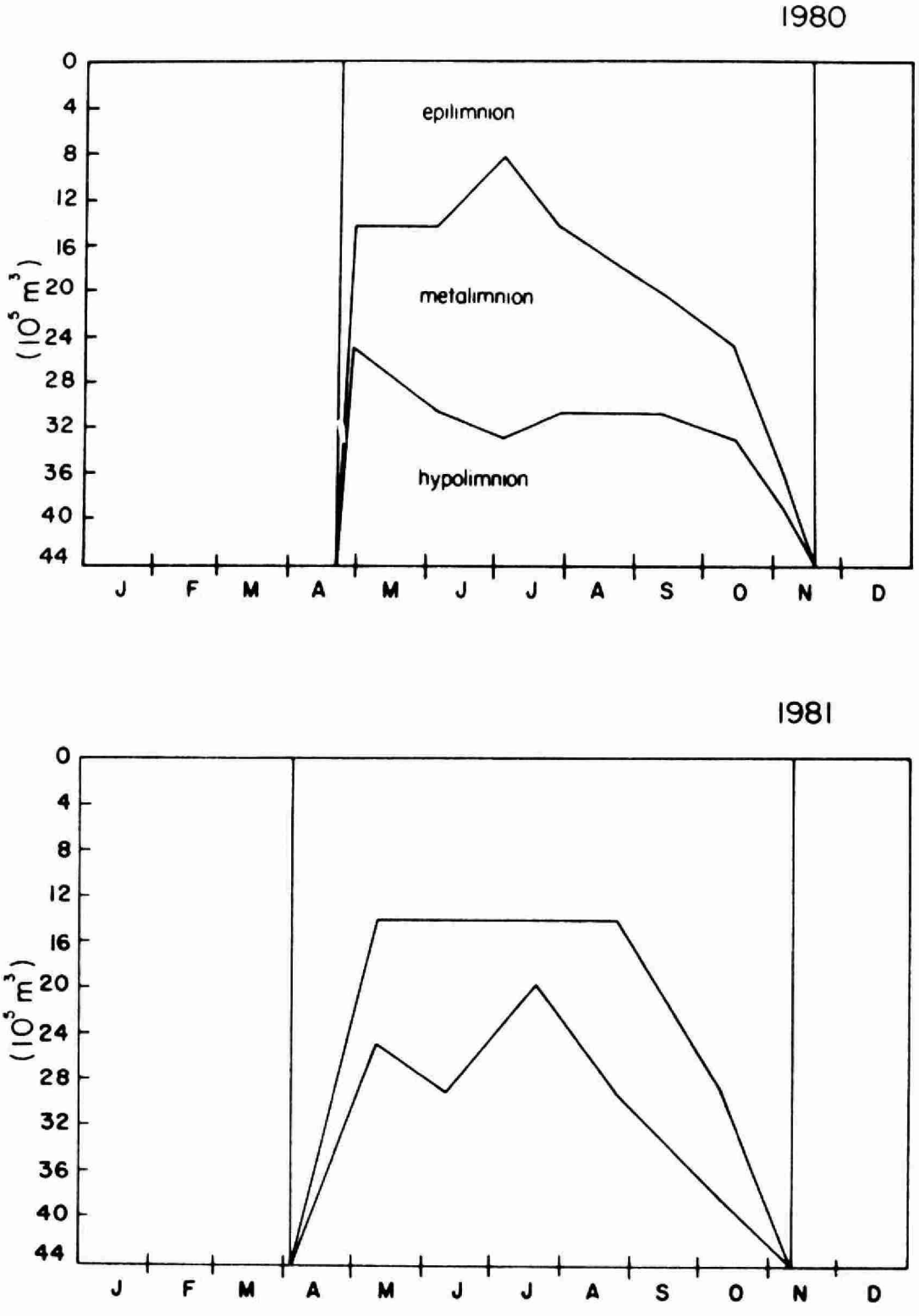
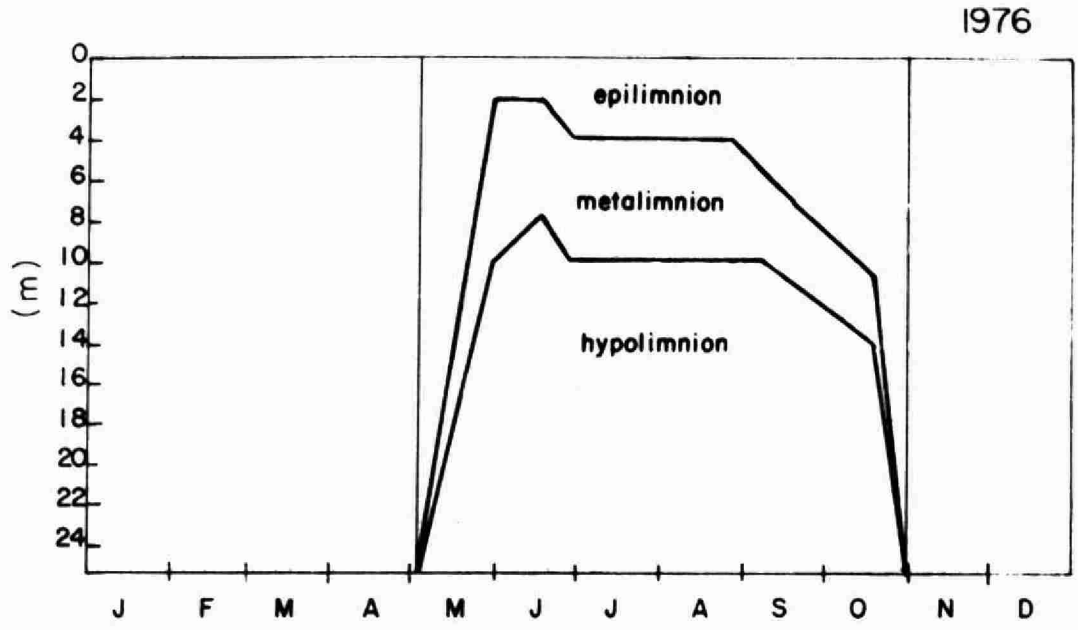


FIGURE 67

CROSSON LAKE - DEPTH OF STRATA



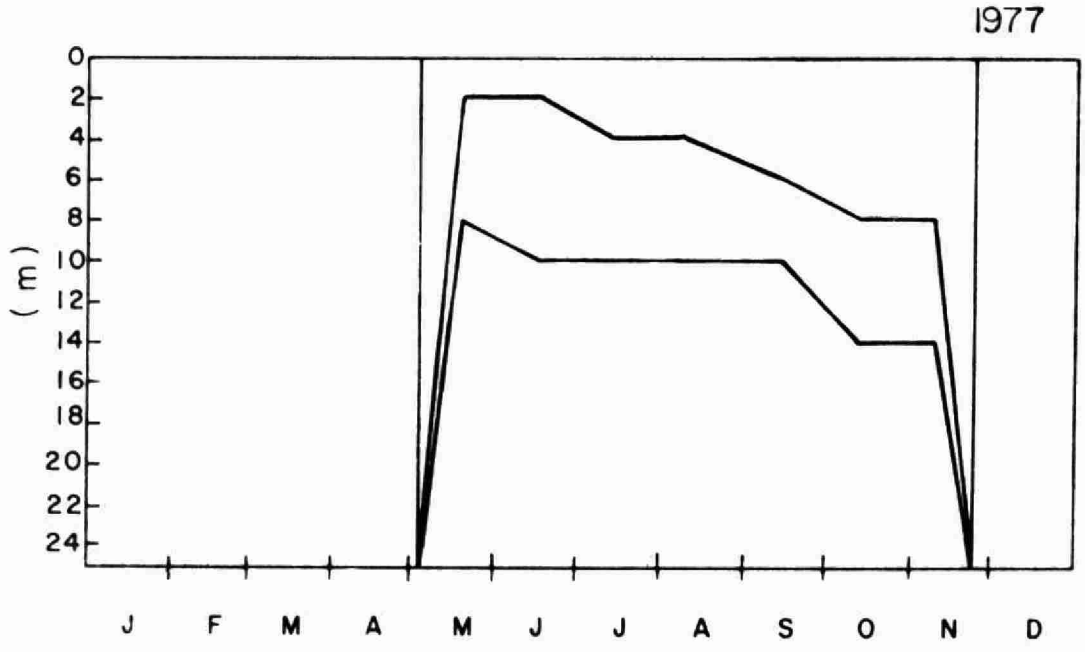


FIGURE 68

CROSSON LAKE - VOLUME OF STRATA

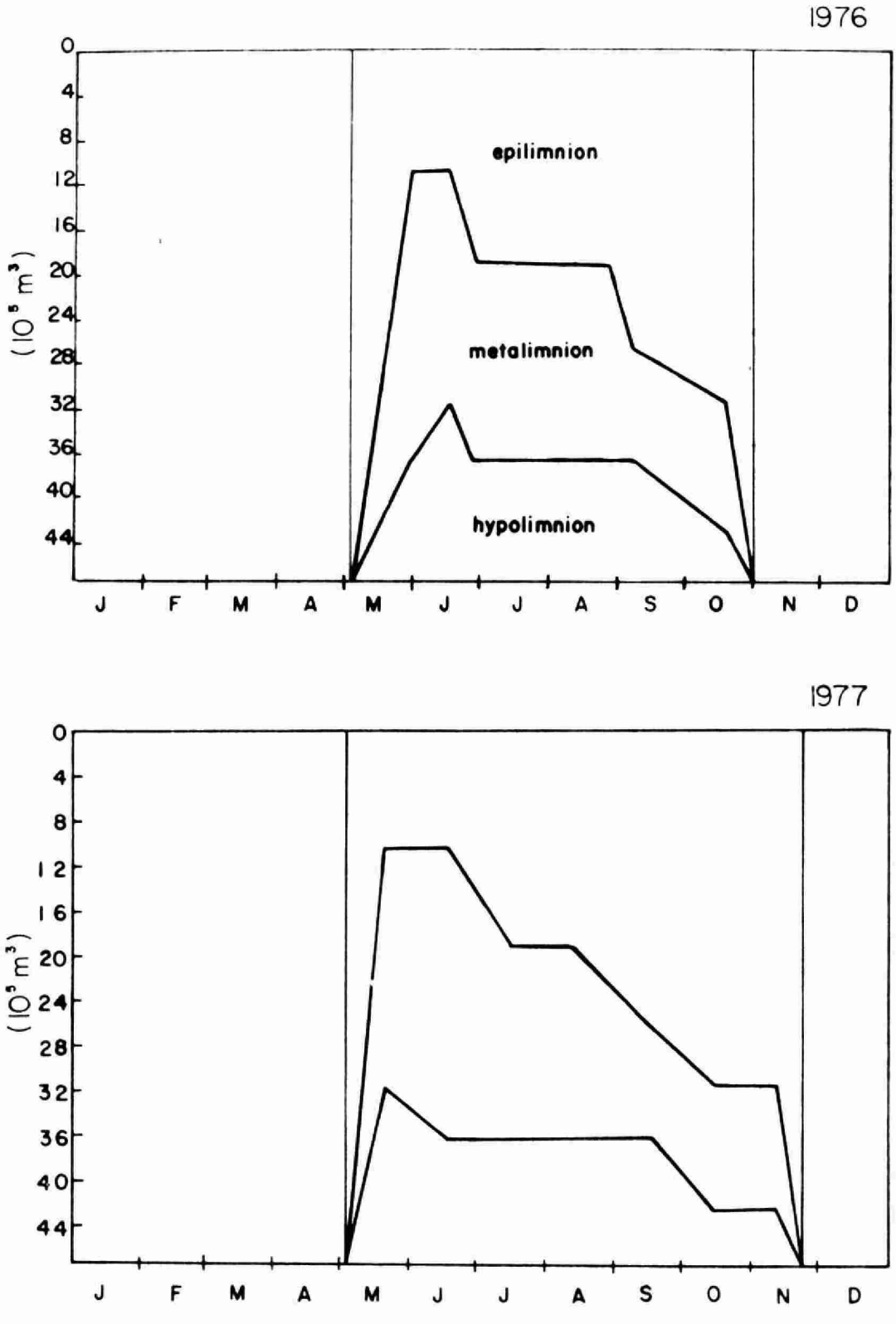


FIGURE 69

CROSSON LAKE - DEPTH OF STRATA

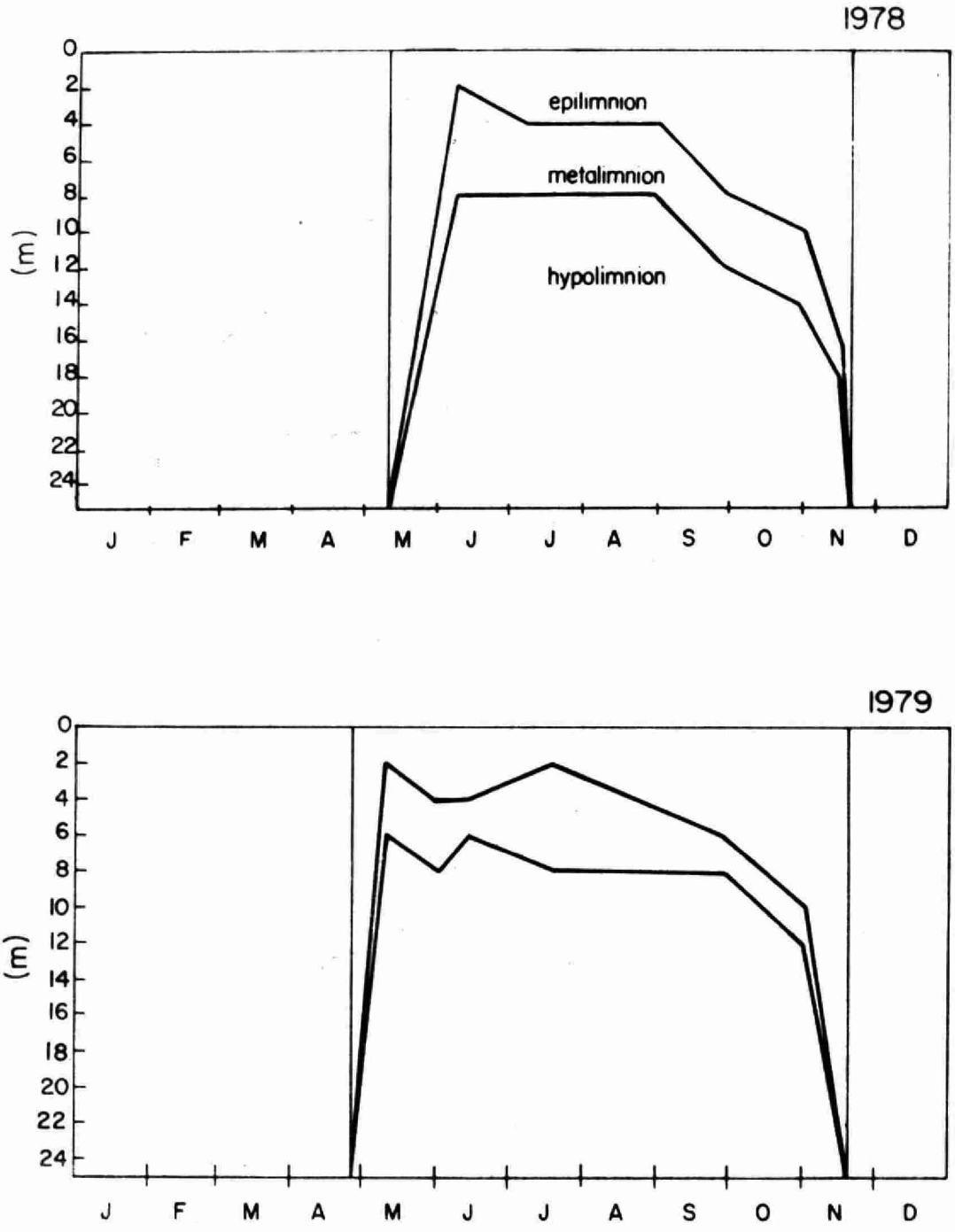


FIGURE 70

CROSSON LAKE - VOLUME OF STRATA

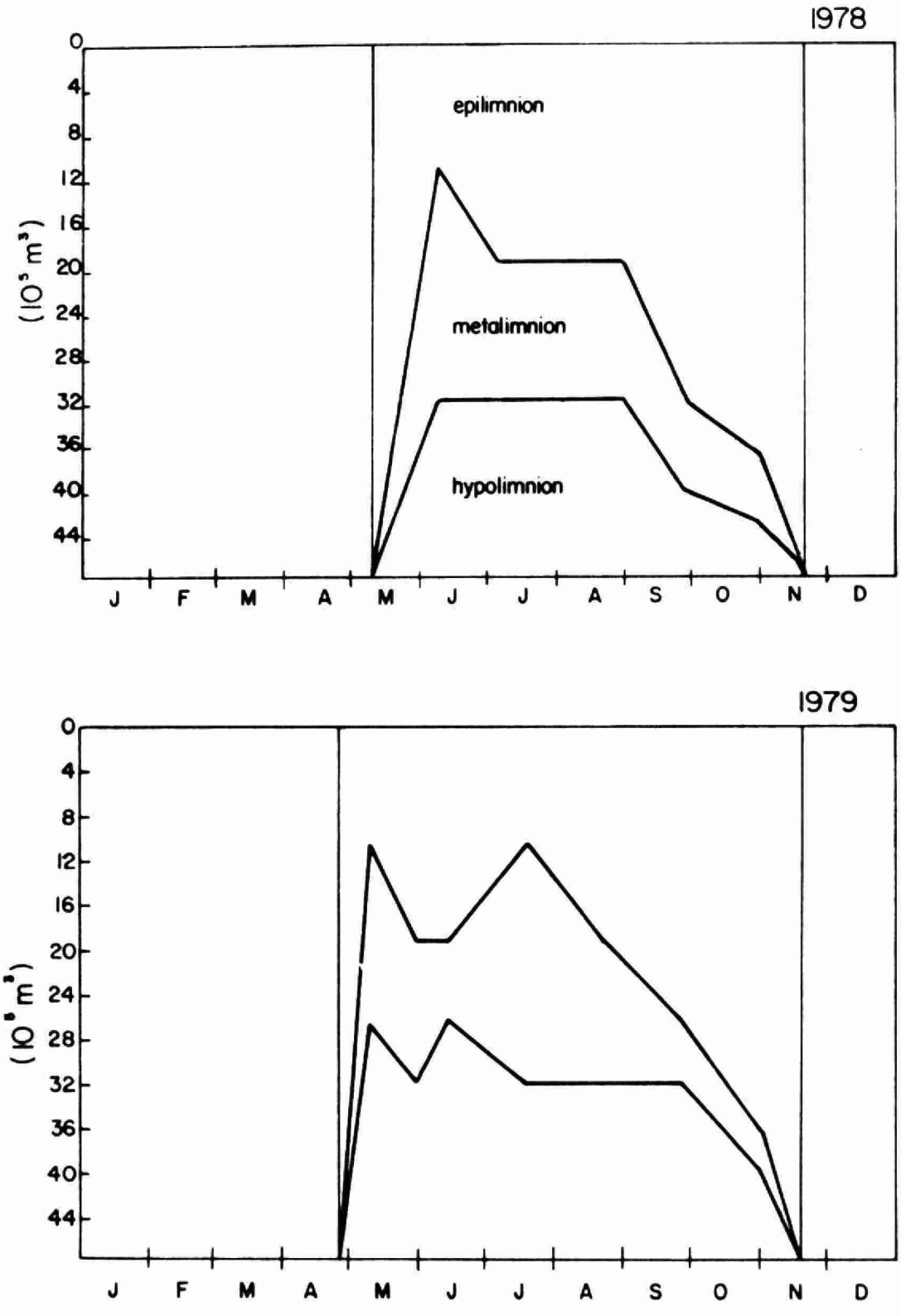


FIGURE 71

CROSSON LAKE - DEPTH OF STRATA

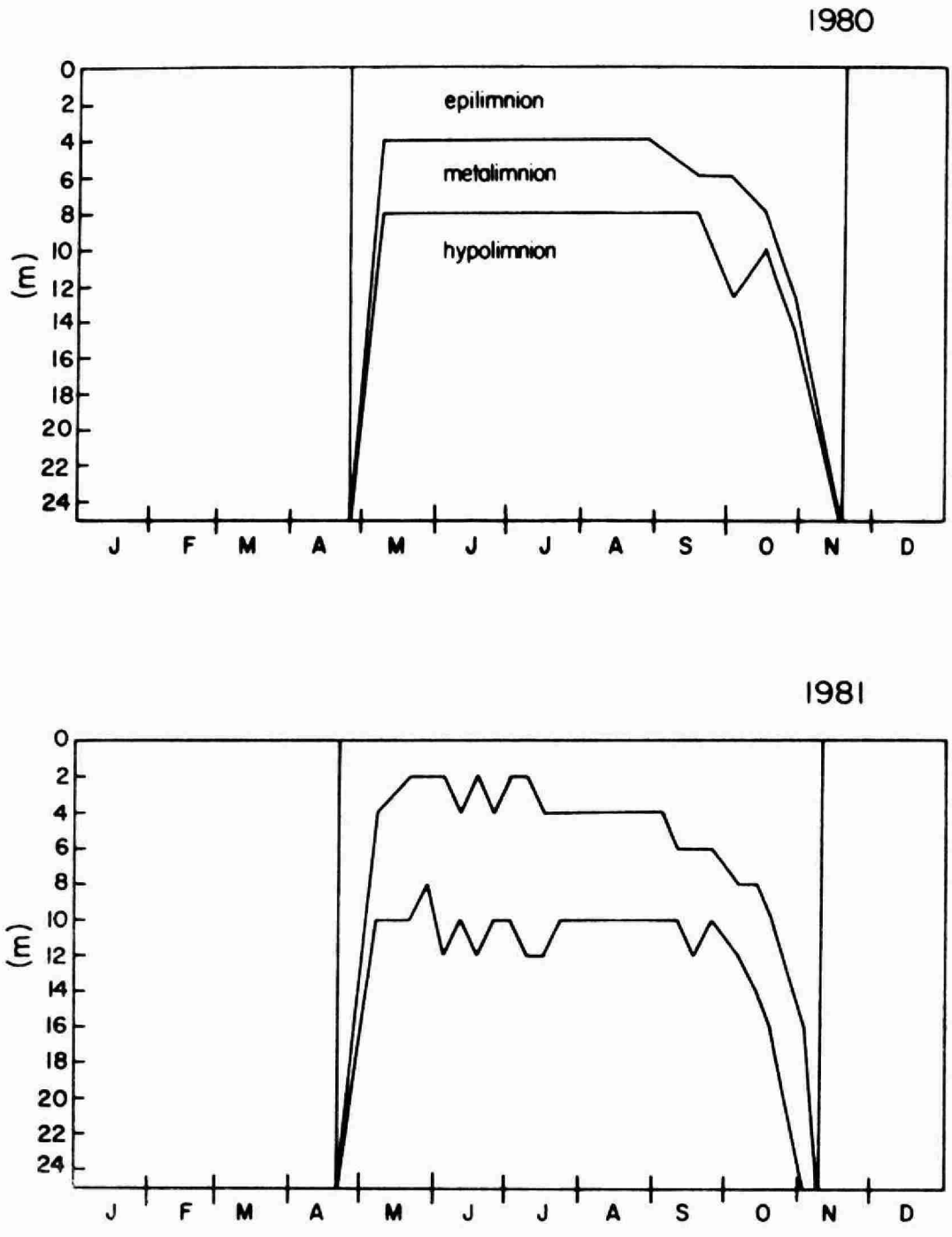


FIGURE 72

CROSSON LAKE - VOLUME OF STRATA

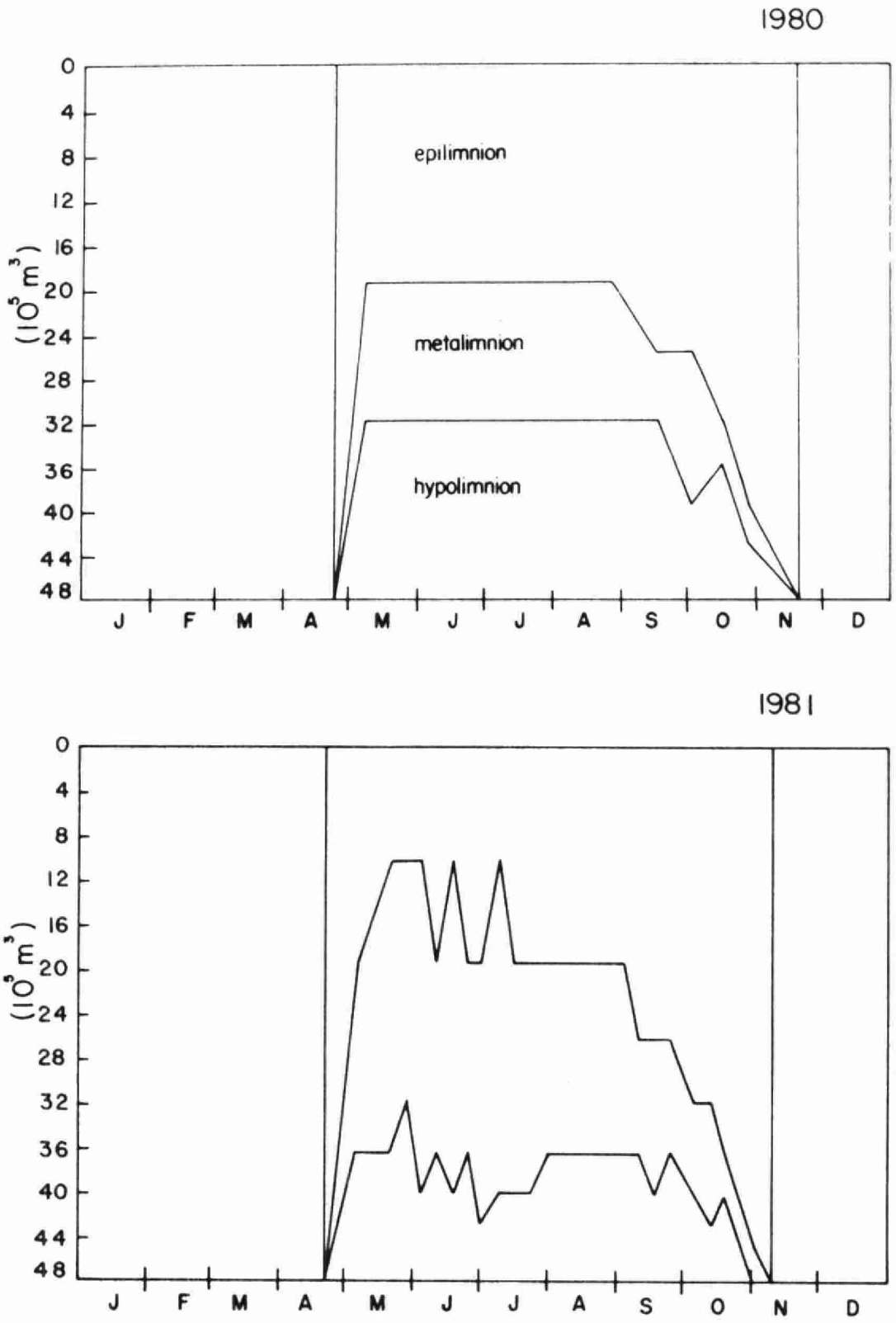


FIGURE 73

CROSSON LAKE - DEPTH OF STRATA

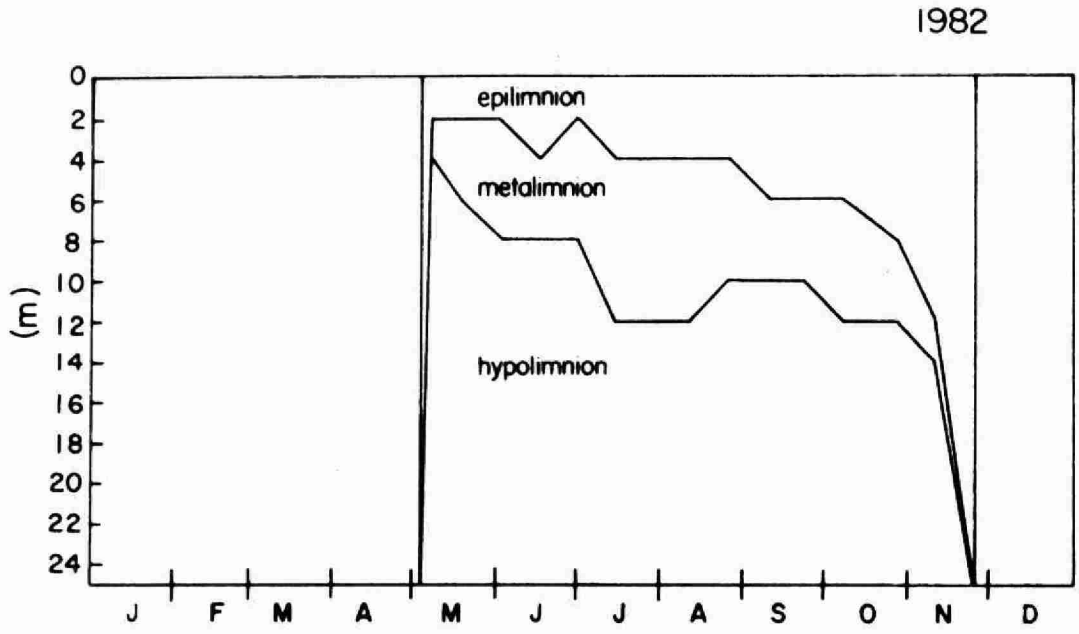


FIGURE 74

CROSSON LAKE - VOLUME OF STRATA

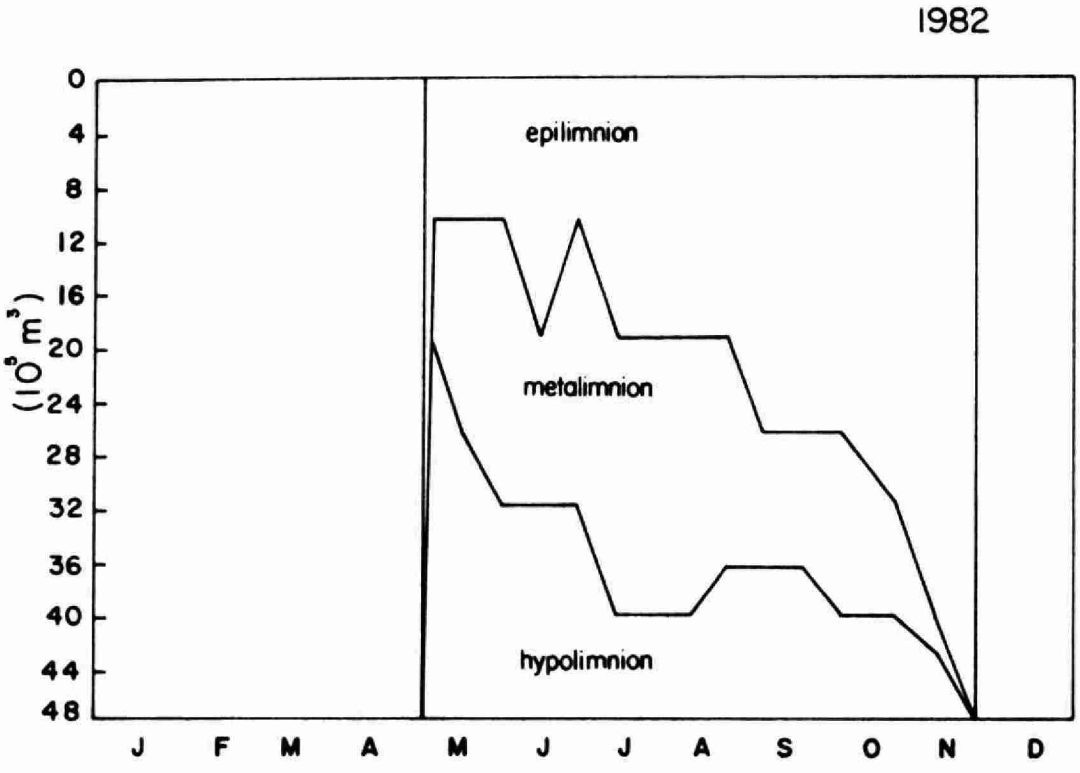


FIGURE 75

GLEN LAKE - DEPTH OF STRATA

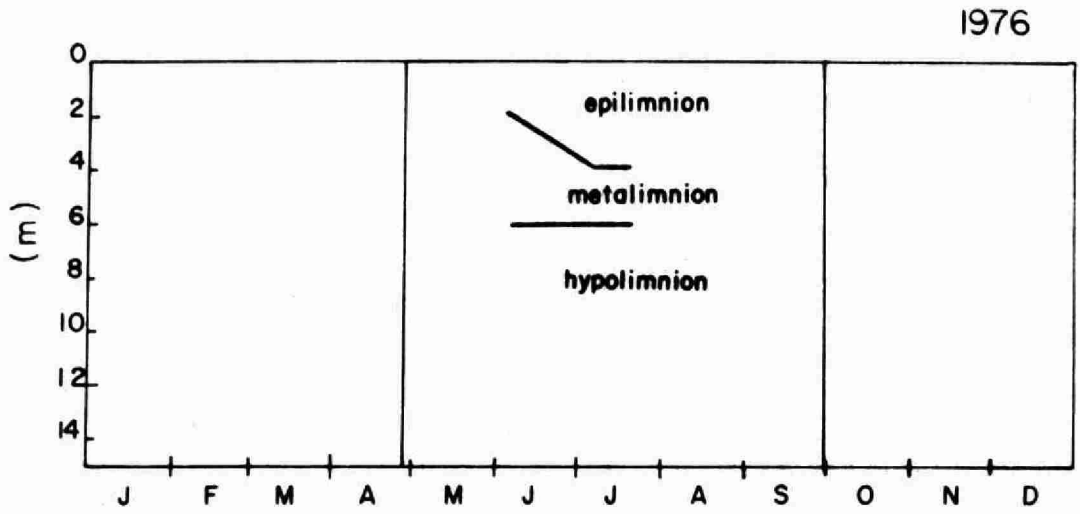


FIGURE 76

GLEN LAKE - VOLUME OF STRATA

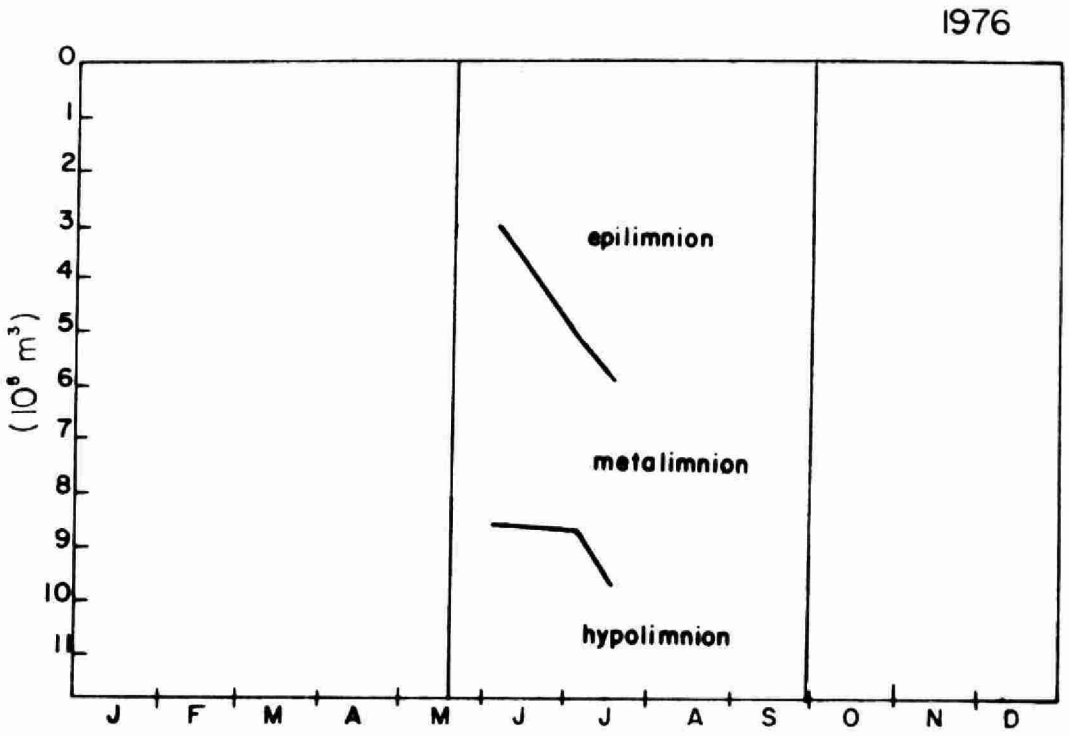


FIGURE 77

GLEN LAKE - DEPTH OF STRATA

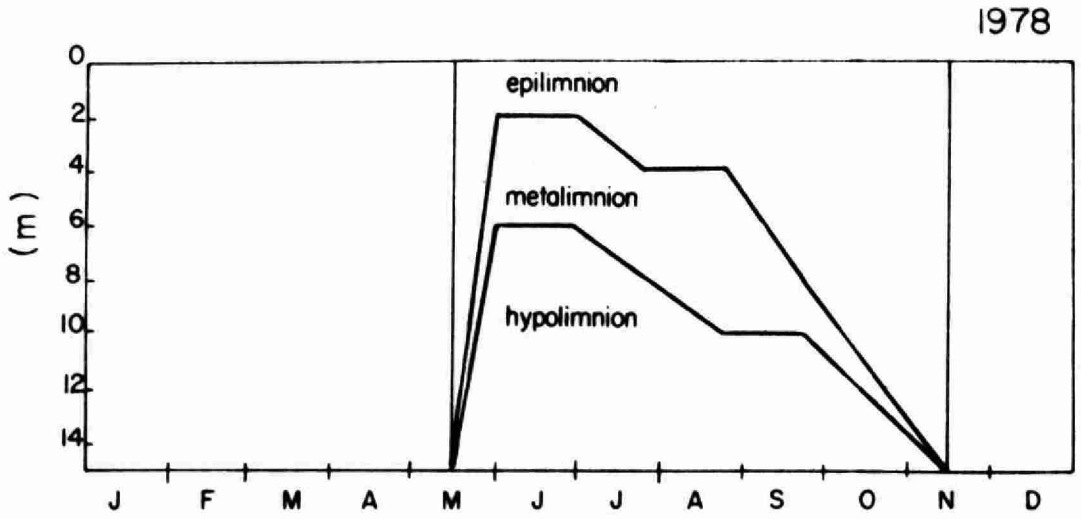


FIGURE 78

GLEN LAKE - VOLUME OF STRATA

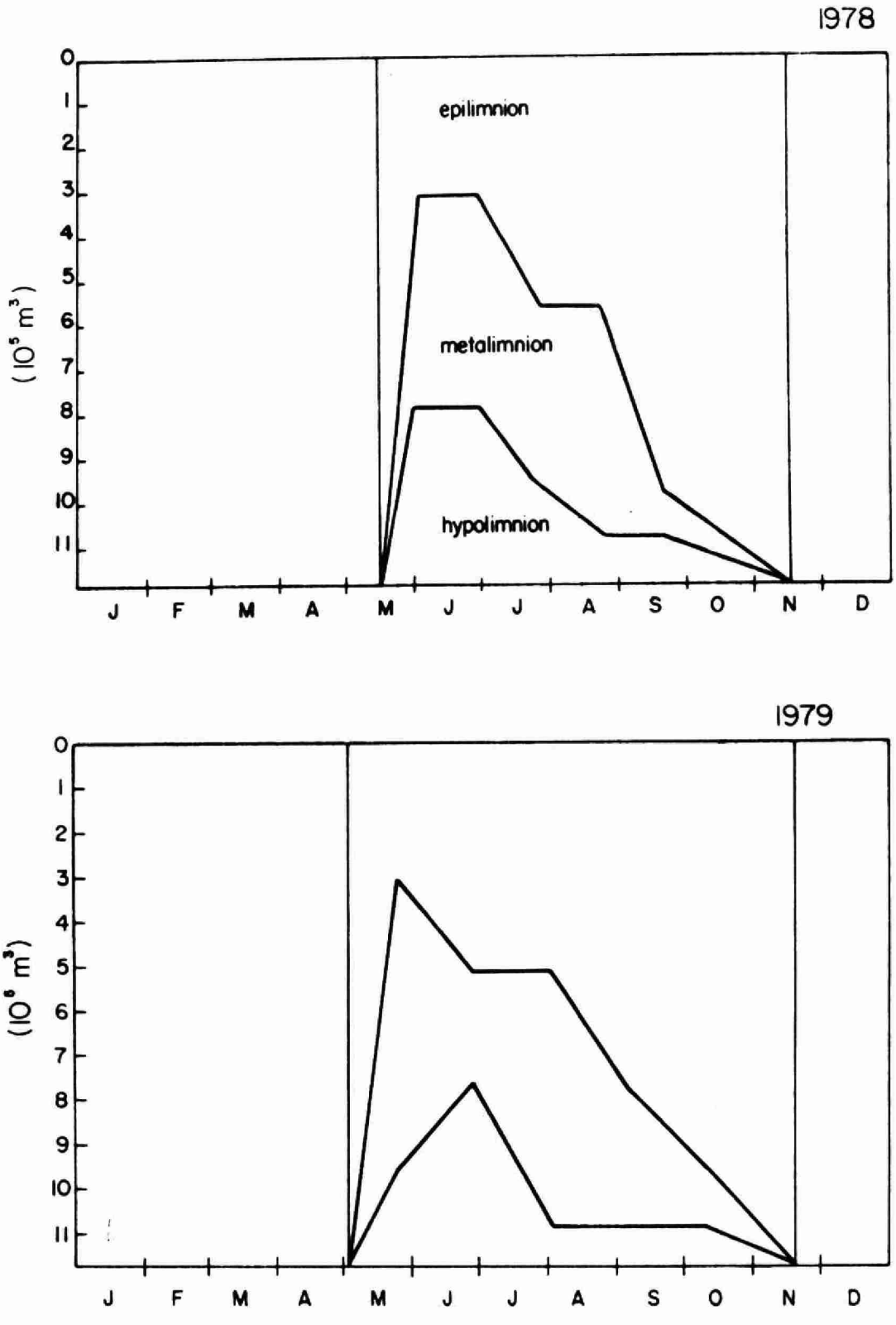


FIGURE 79

GLEN LAKE - DEPTH OF STRATA

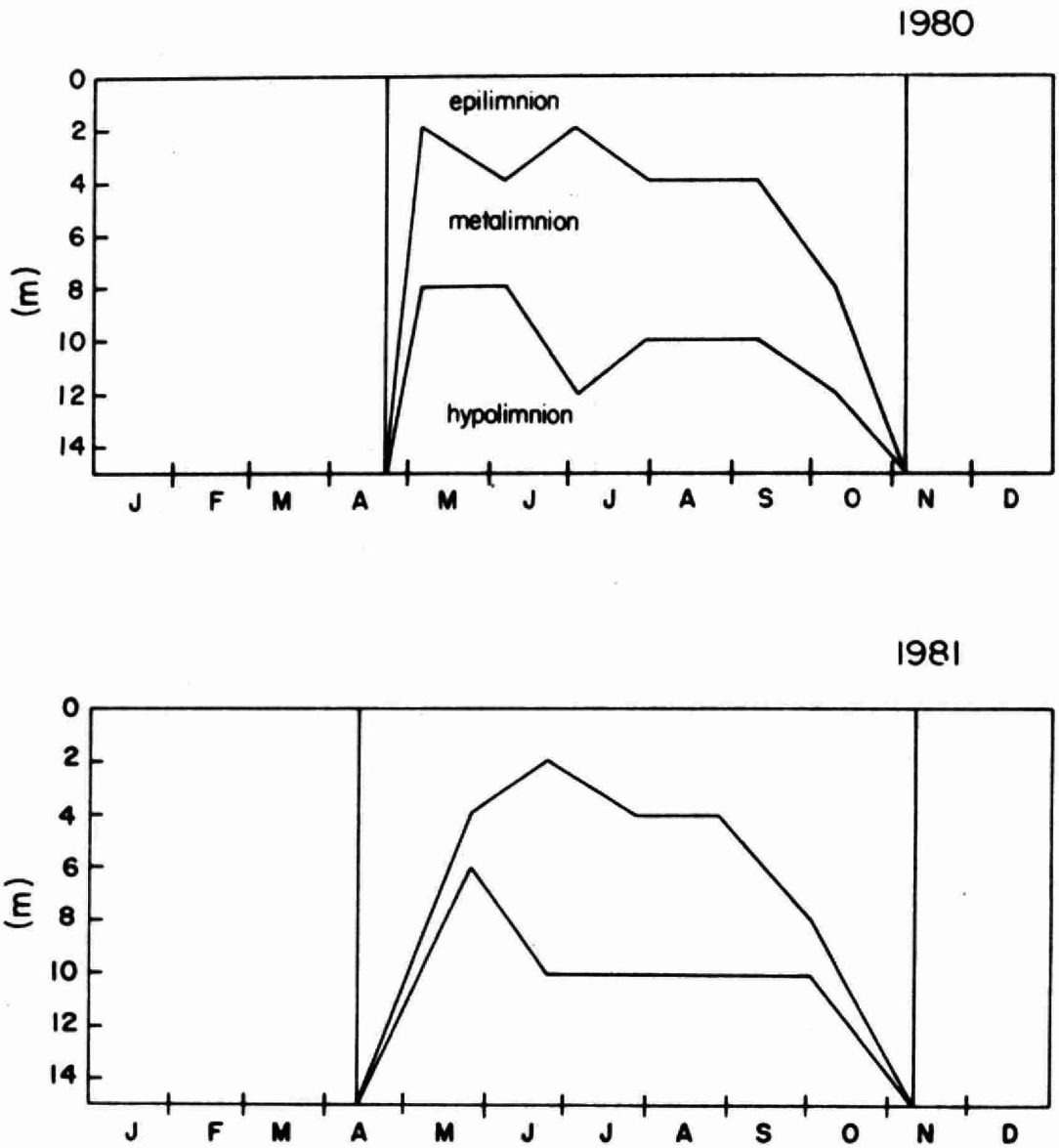


FIGURE 80

GLEN LAKE - VOLUME OF STRATA

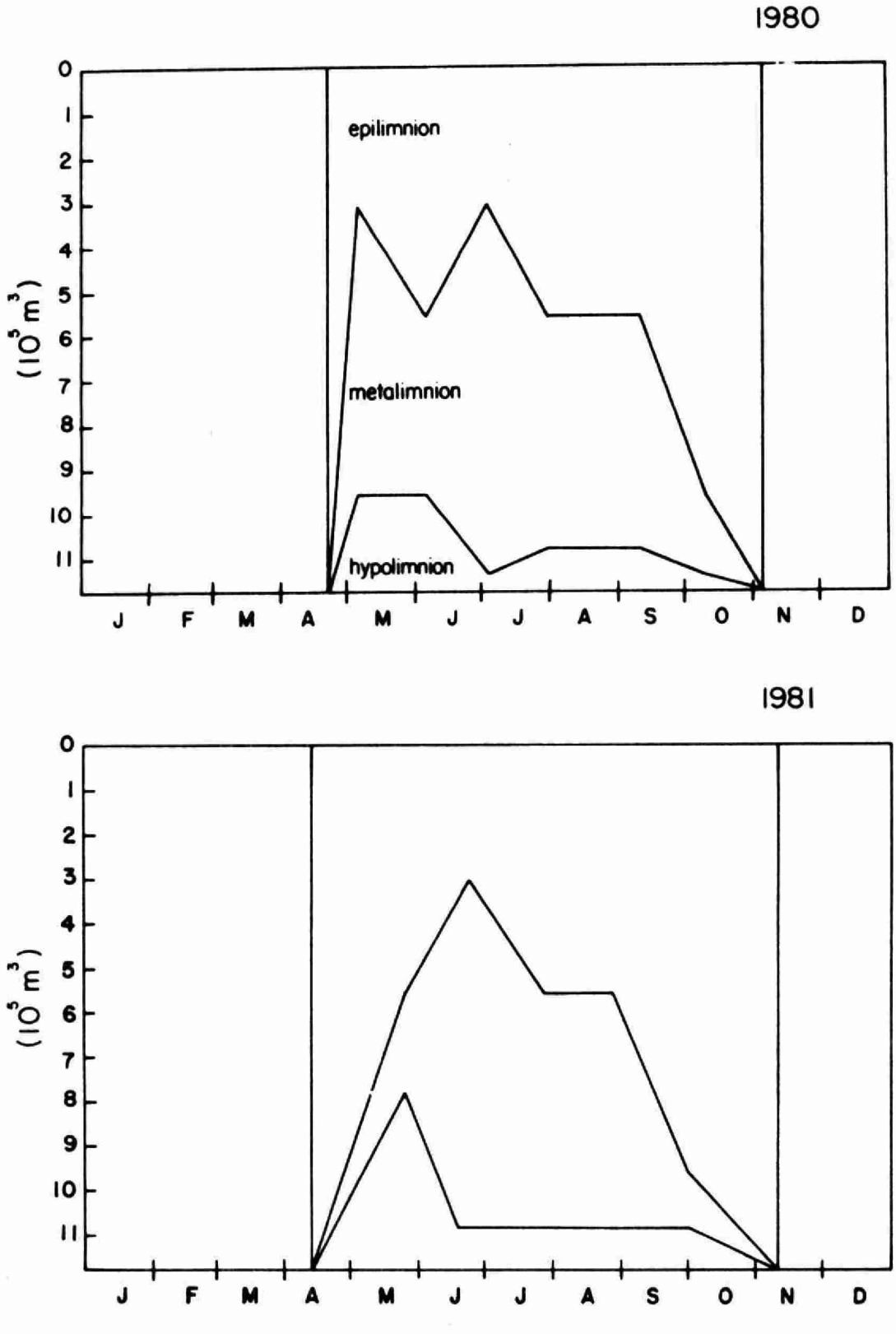


FIGURE 81

GULLFEATHER LAKE - DEPTH OF STRATA

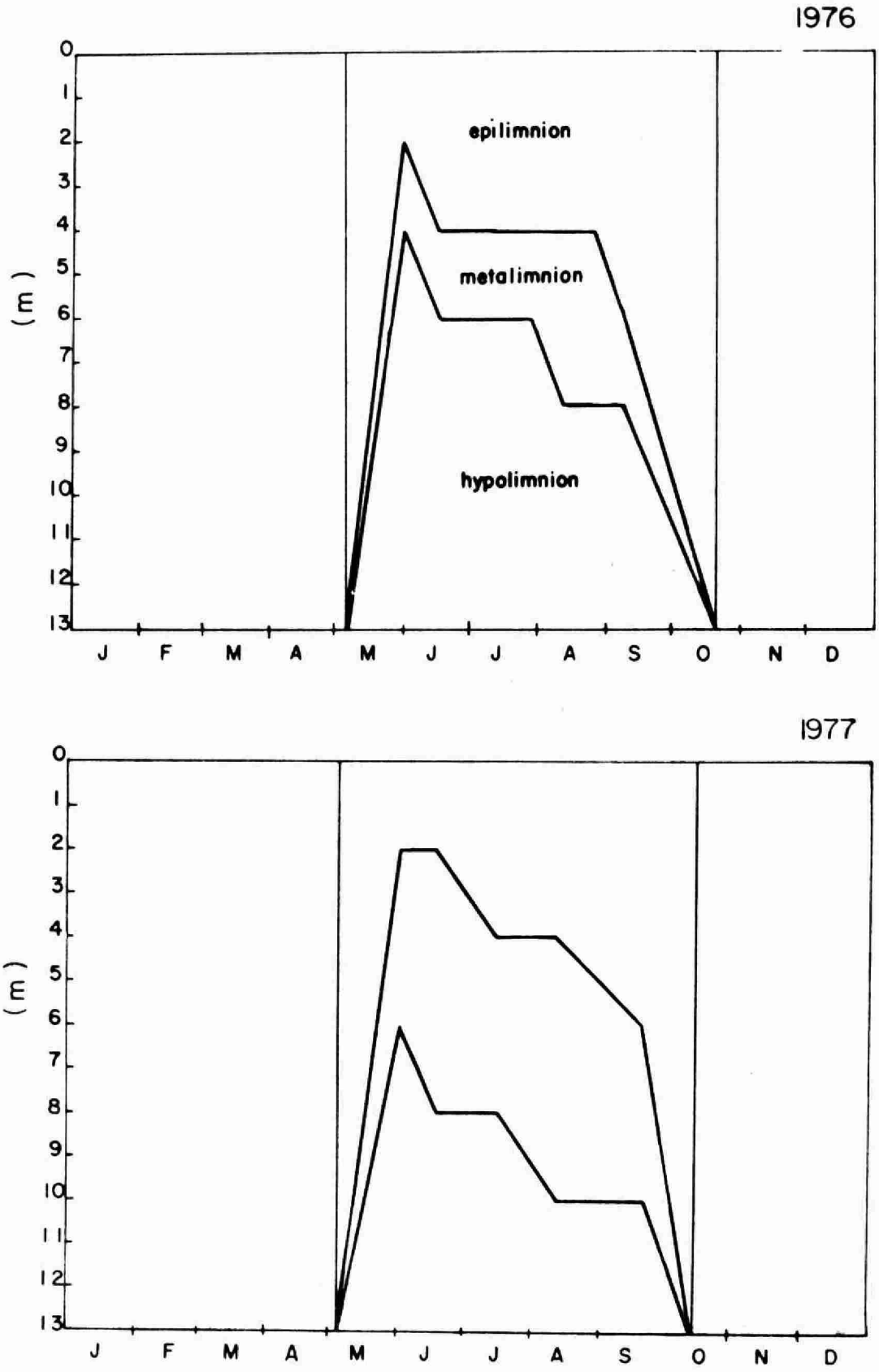


FIGURE 82

GULLFEATHER LAKE - VOLUME OF STRATA

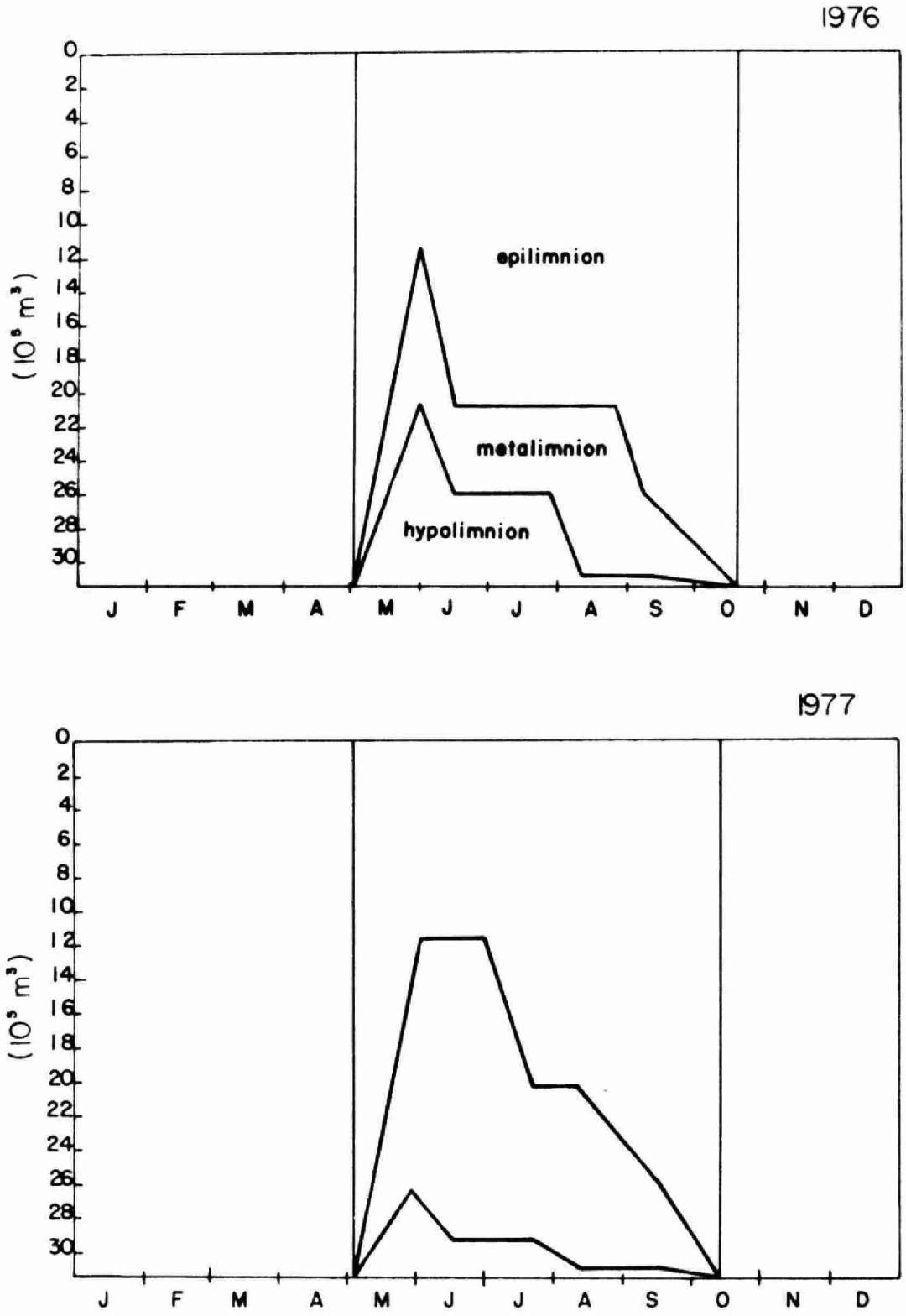


FIGURE 83

GULLFEATHER LAKE - DEPTH OF STRATA

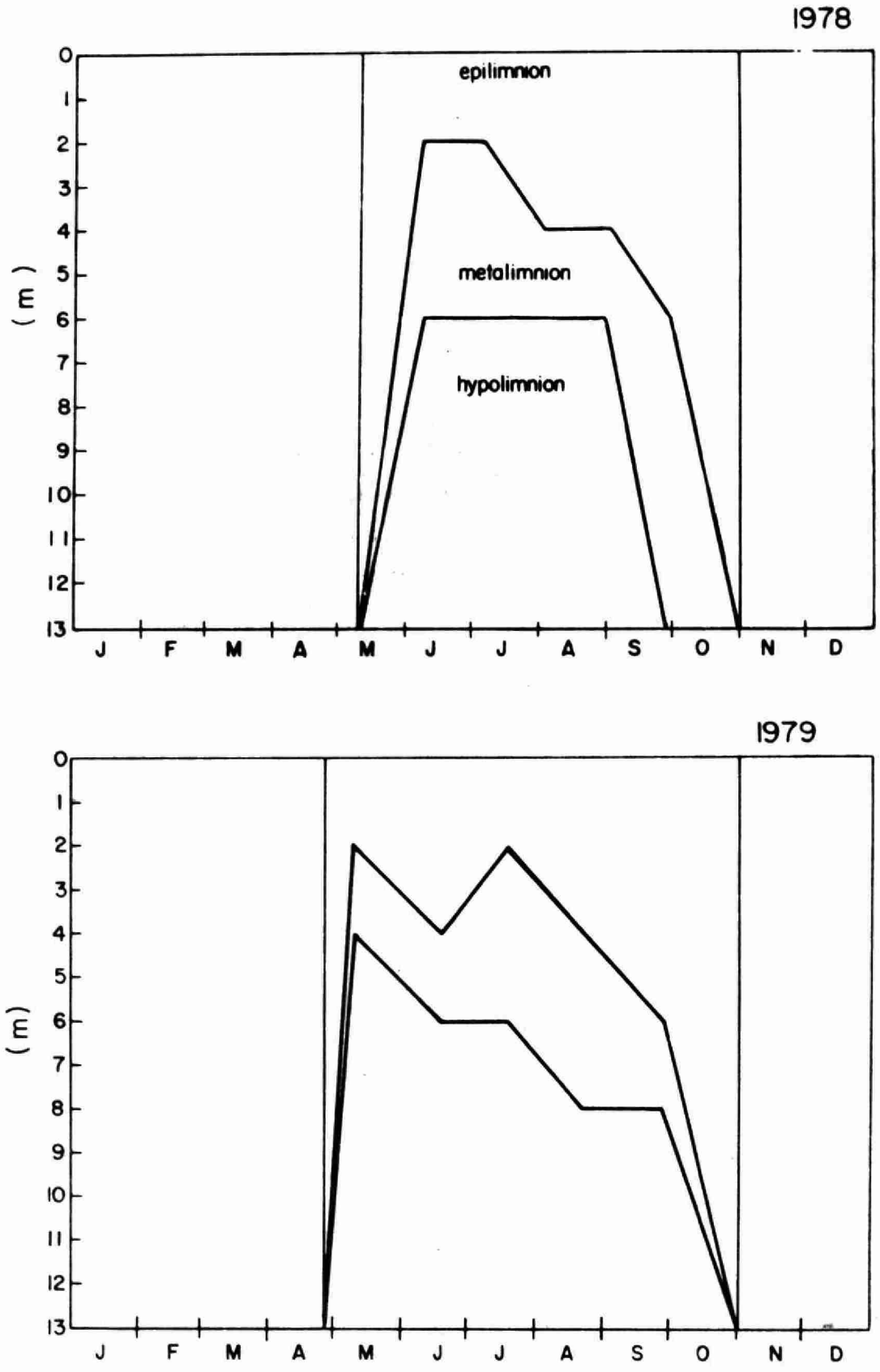


FIGURE 84

GULLFEATHER LAKE - VOLUME OF STRATA

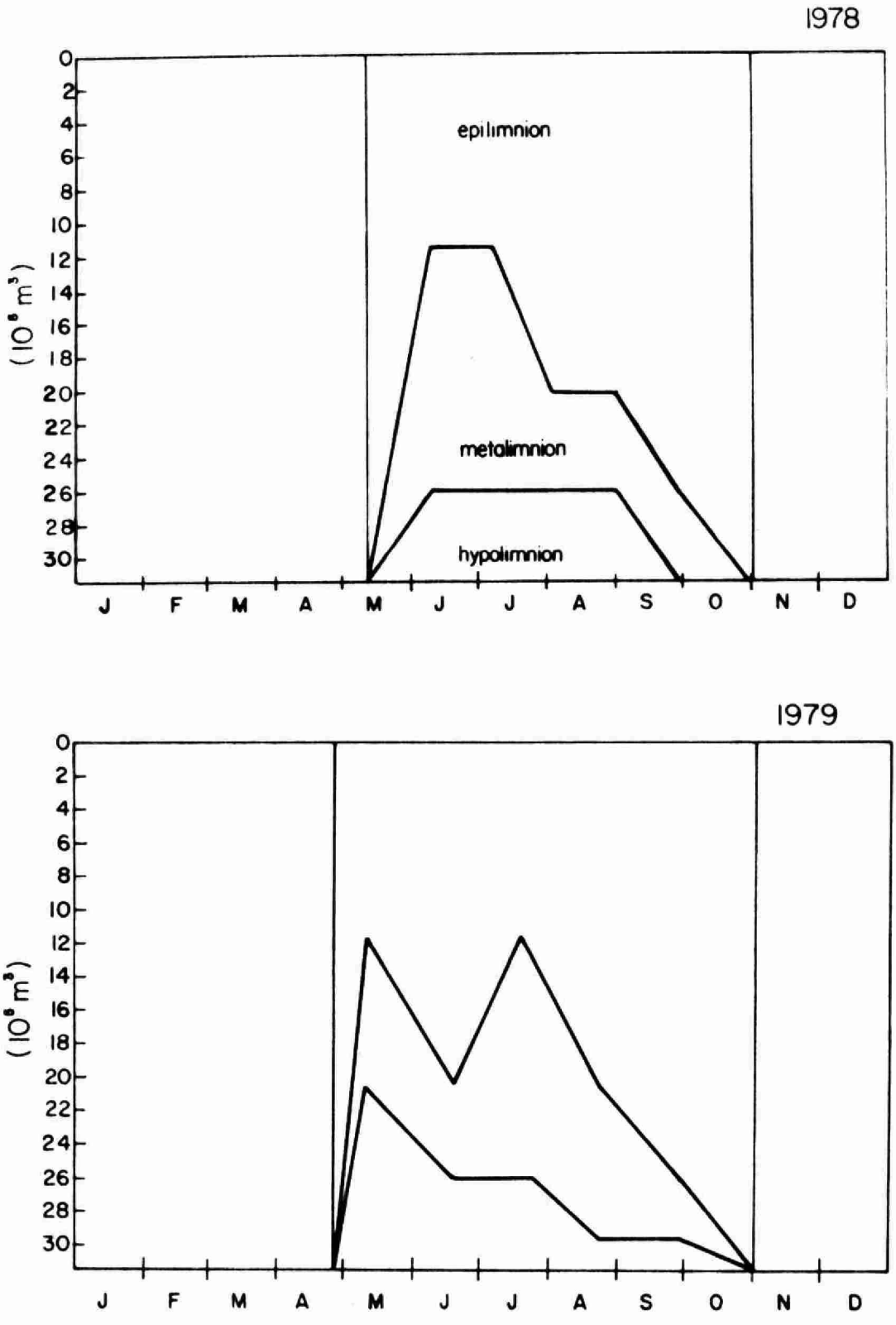


FIGURE 85

GULLFEATHER LAKE - DEPTH OF STRATA

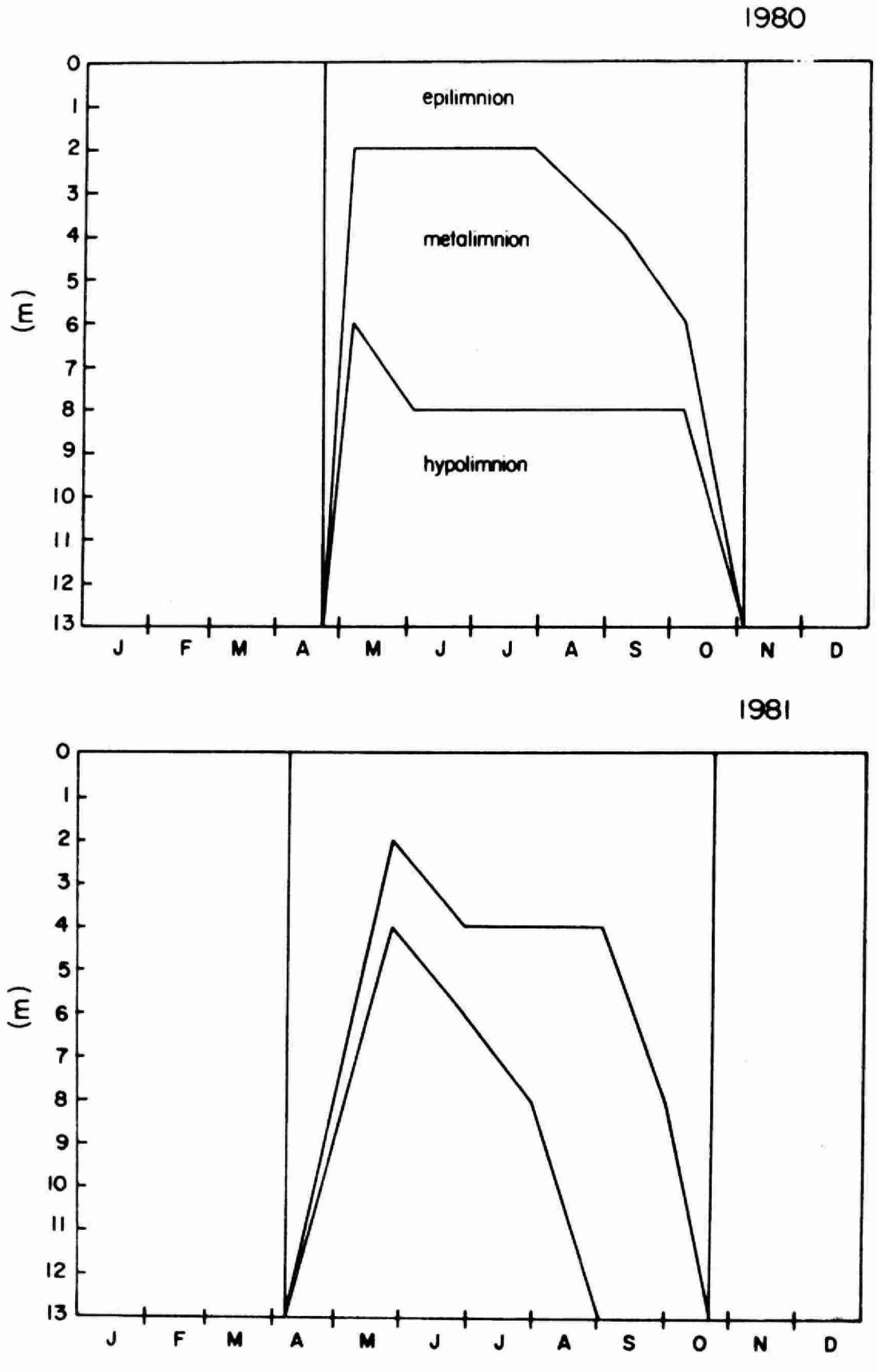


FIGURE 86

GULLFEATHER LAKE - VOLUME OF STRATA

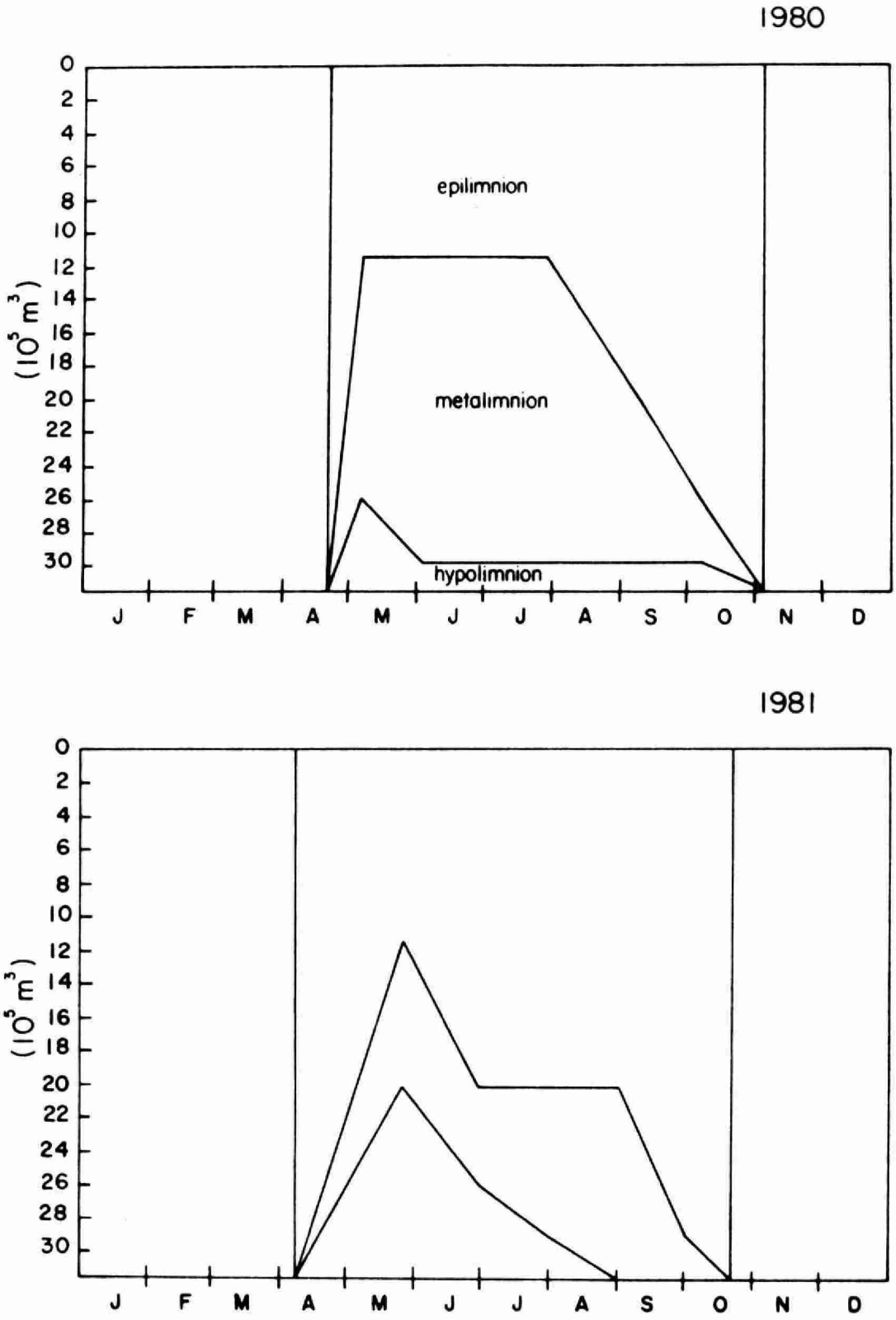


FIGURE 87

LITTLE CLEAR LAKE - DEPTH OF STRATA

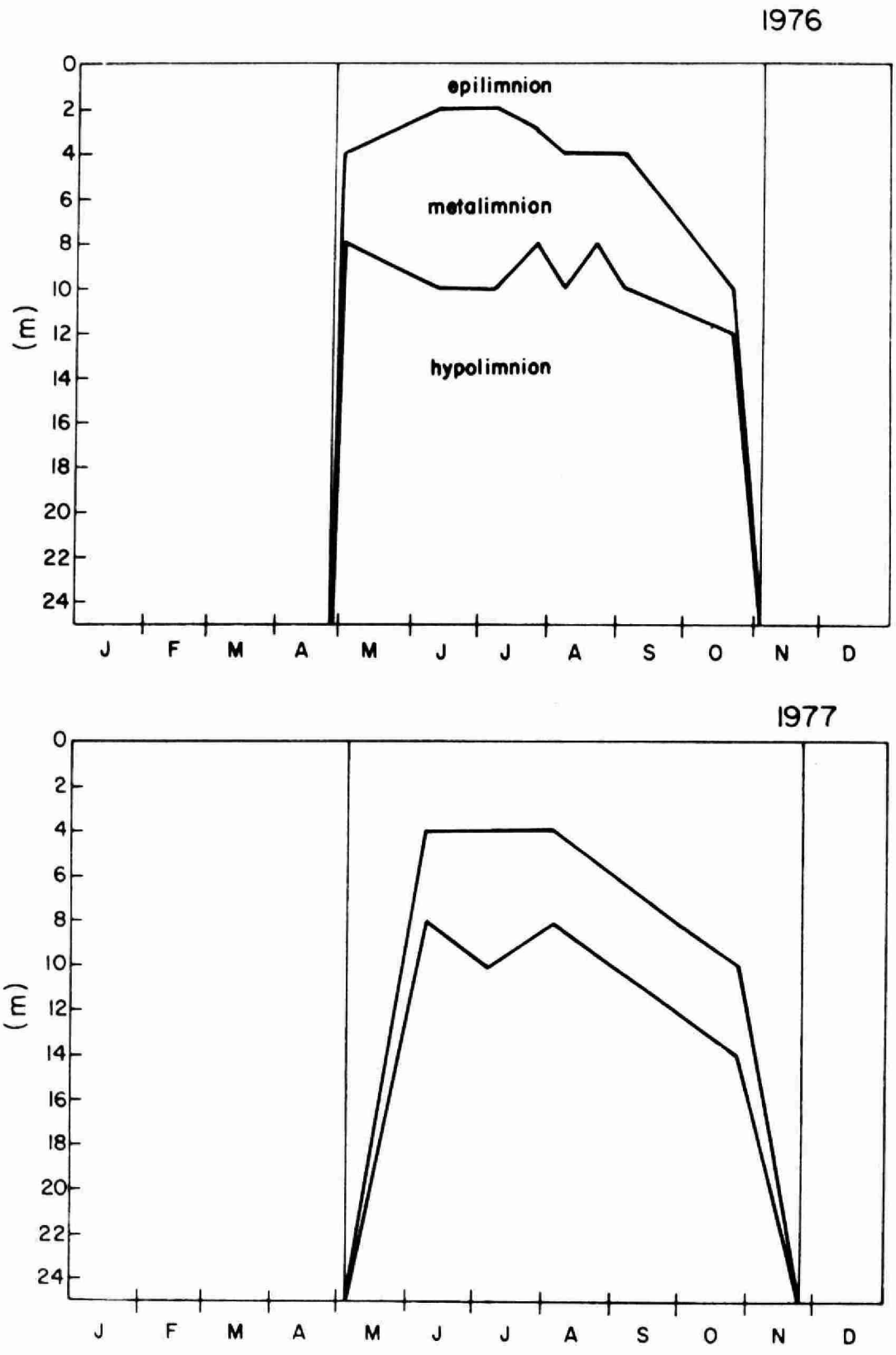


FIGURE 88

LITTLE CLEAR LAKE - VOLUME OF STRATA

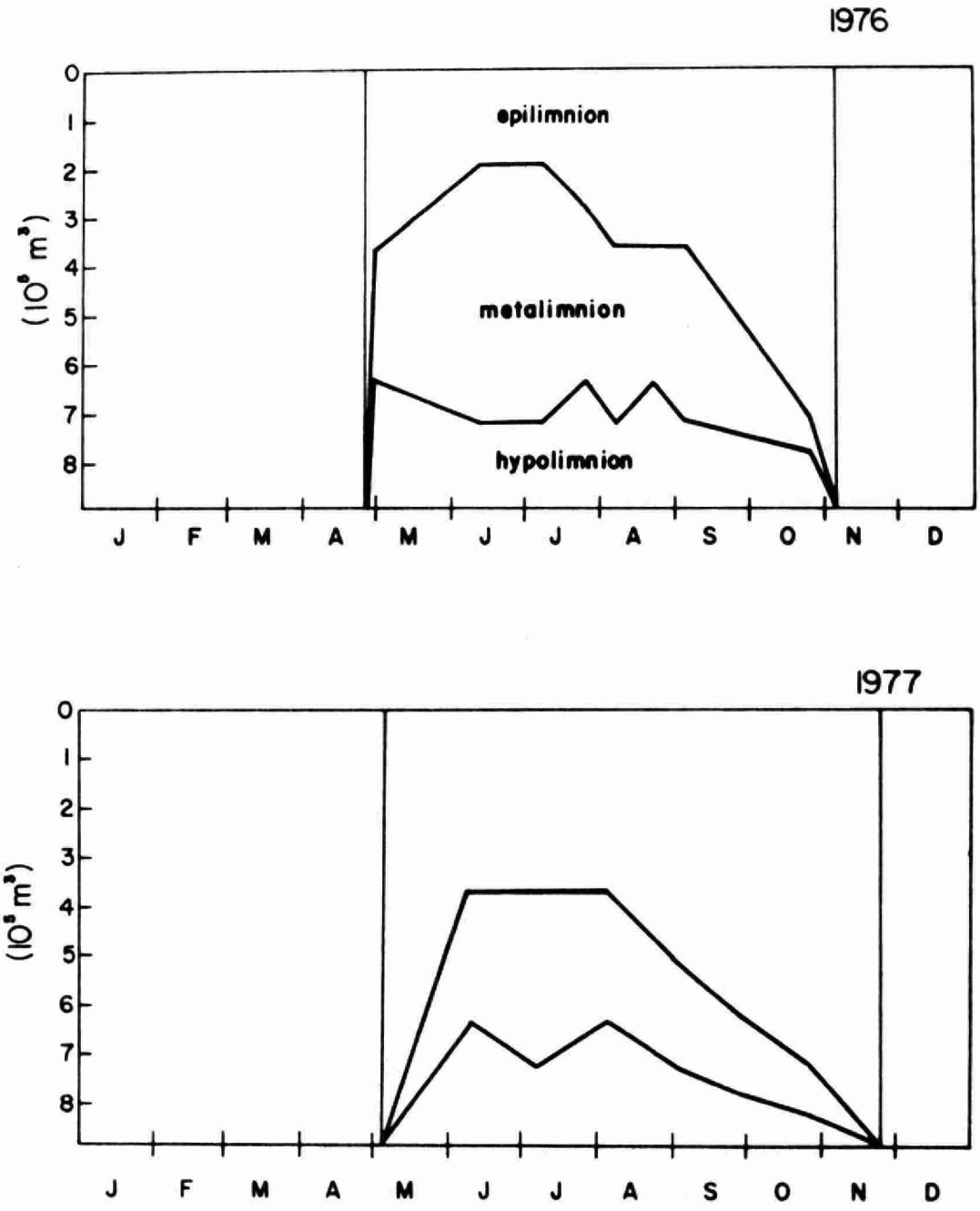


FIGURE 89

LITTLE CLEAR LAKE - DEPTH OF STRATA

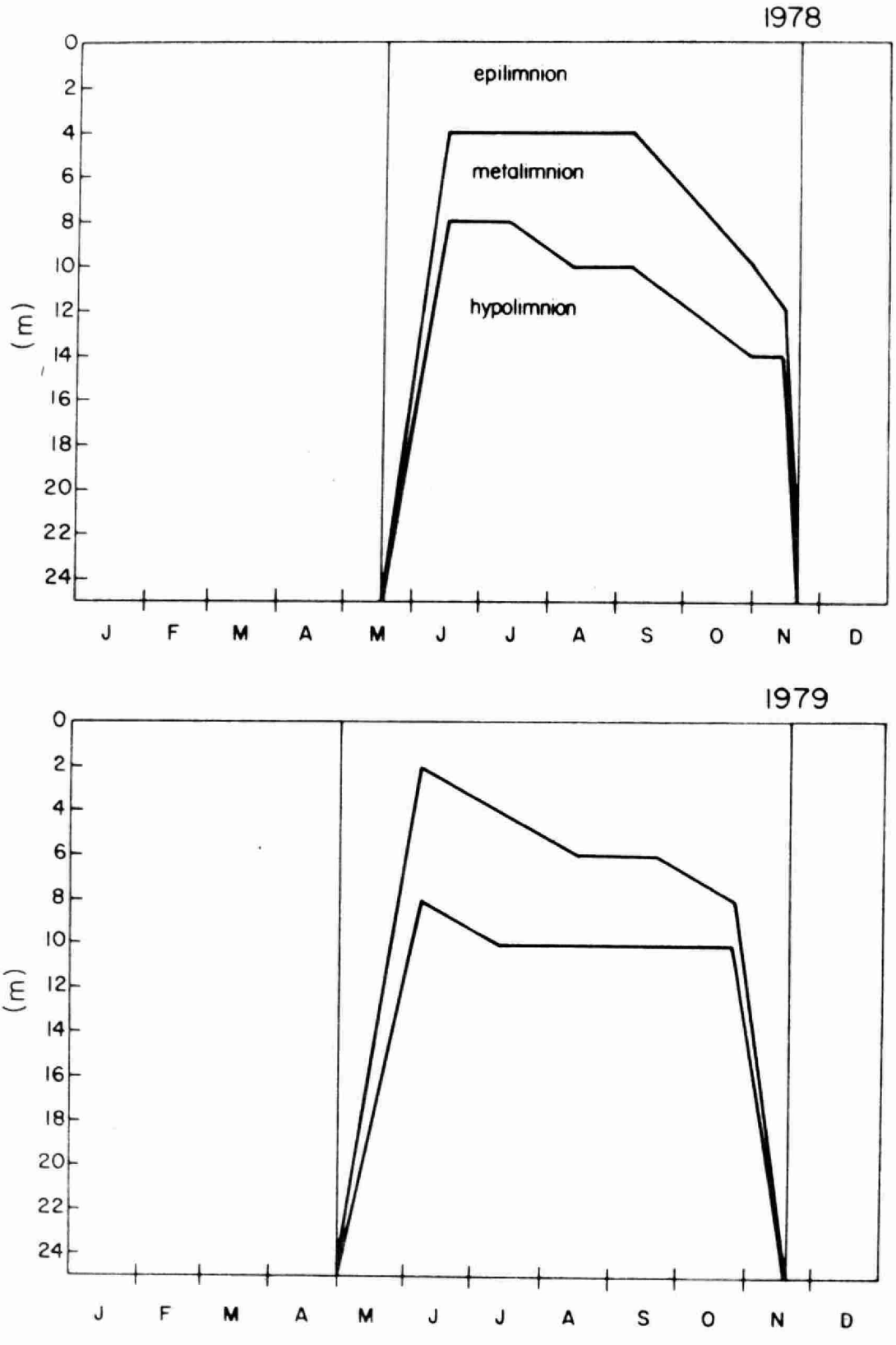
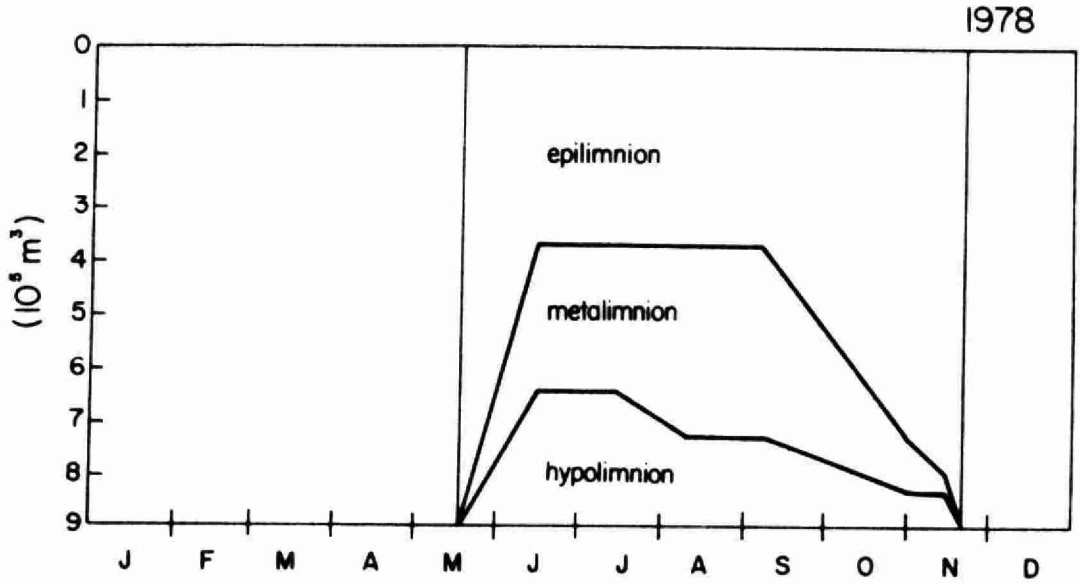


FIGURE 90

LITTLE CLEAR LAKE - VOLUME OF STRATA



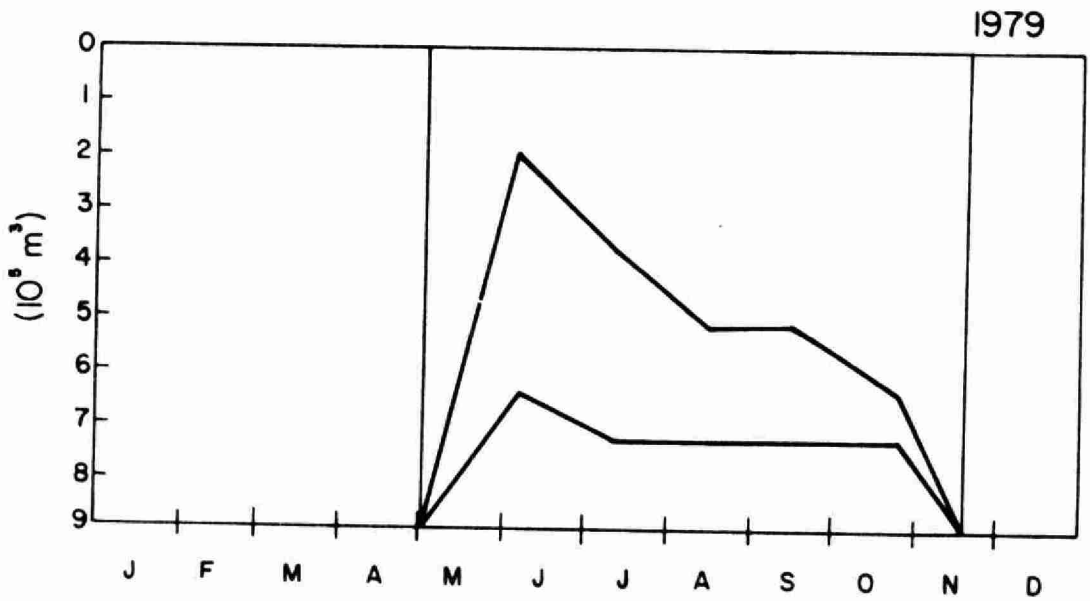


FIGURE 91

LITTLE CLEAR LAKE - DEPTH OF STRATA

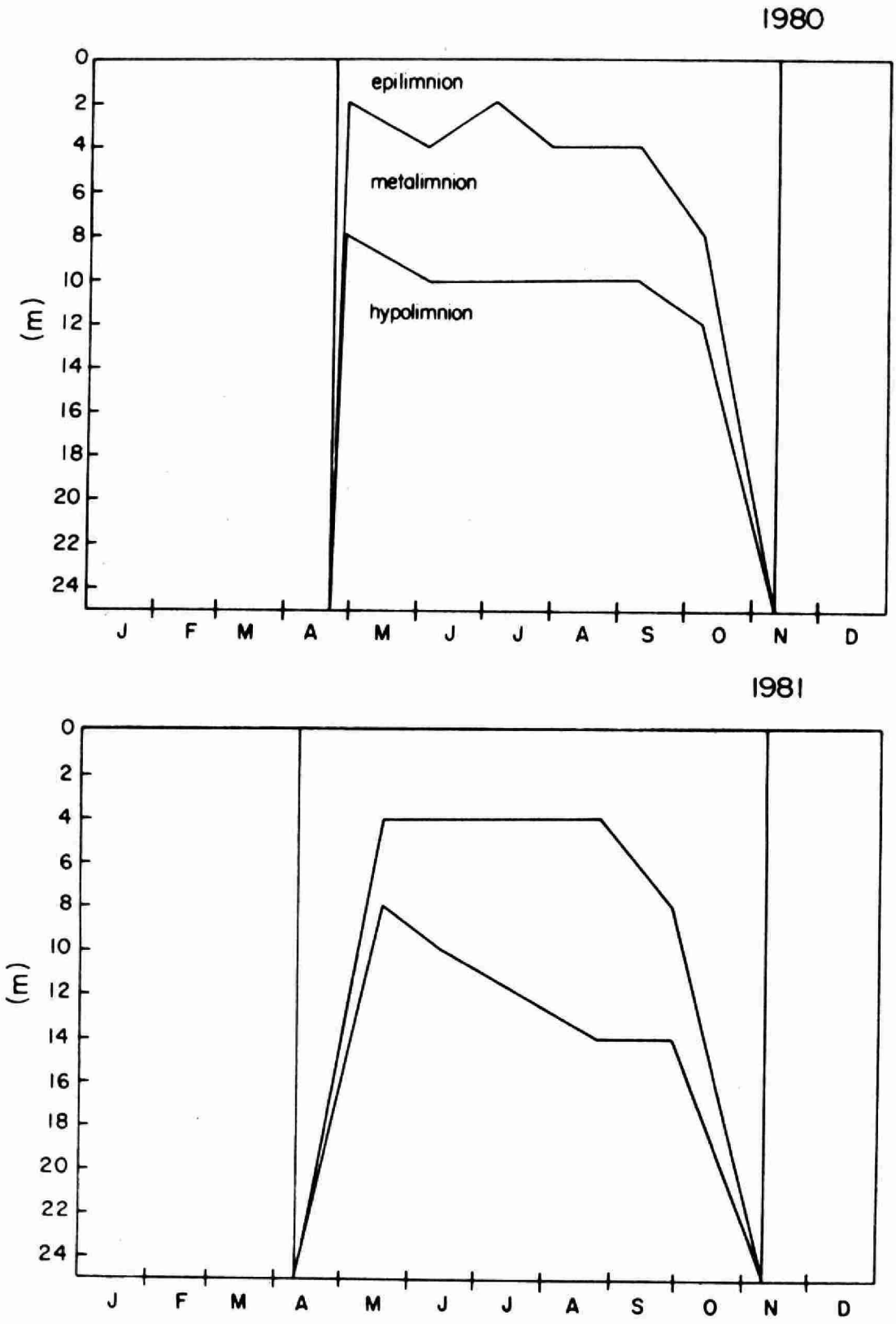
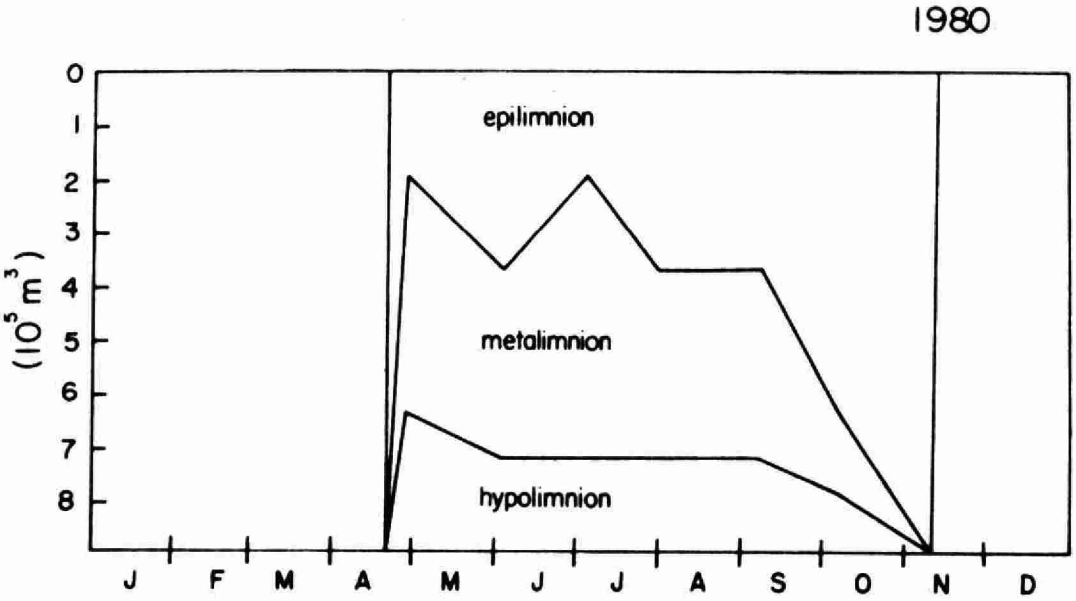


FIGURE 92

LITTLE CLEAR LAKE - VOLUME OF STRATA



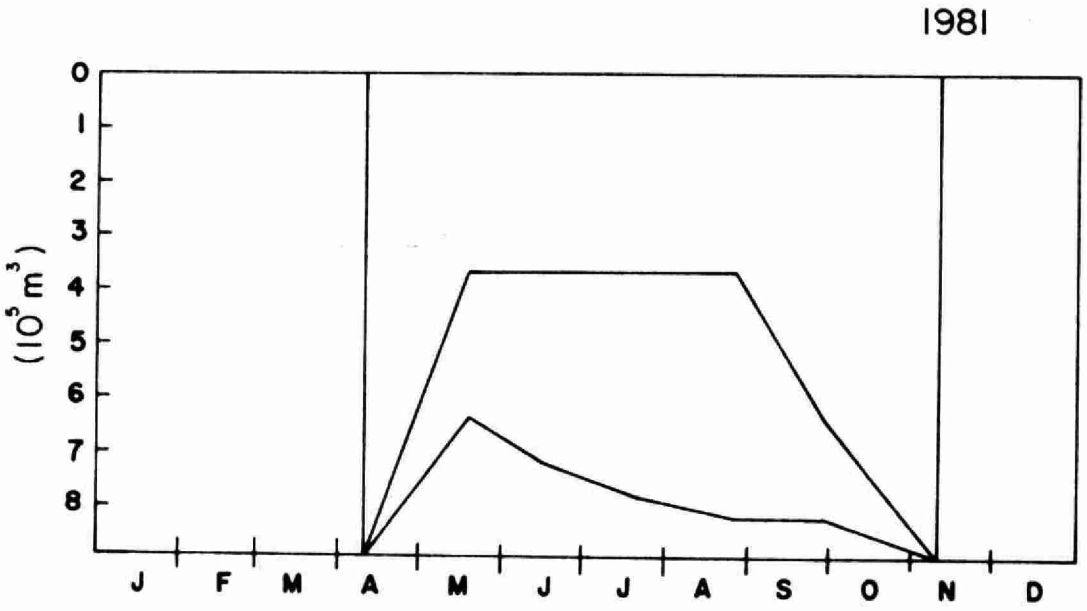


FIGURE 93

SOLITAIRE LAKE - DEPTH OF STRATA

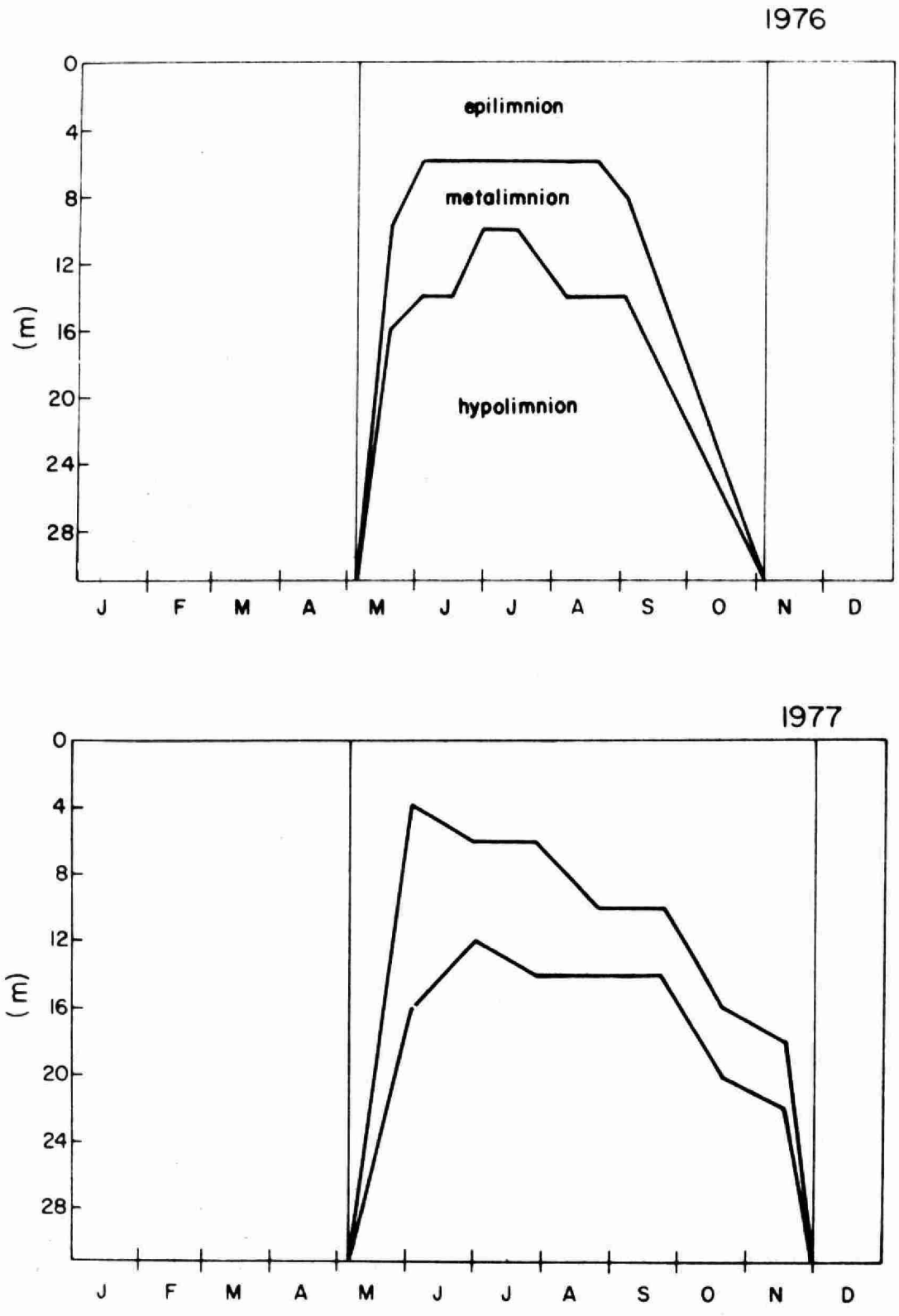


FIGURE 94

SOLITAIRE LAKE - VOLUME OF STRATA

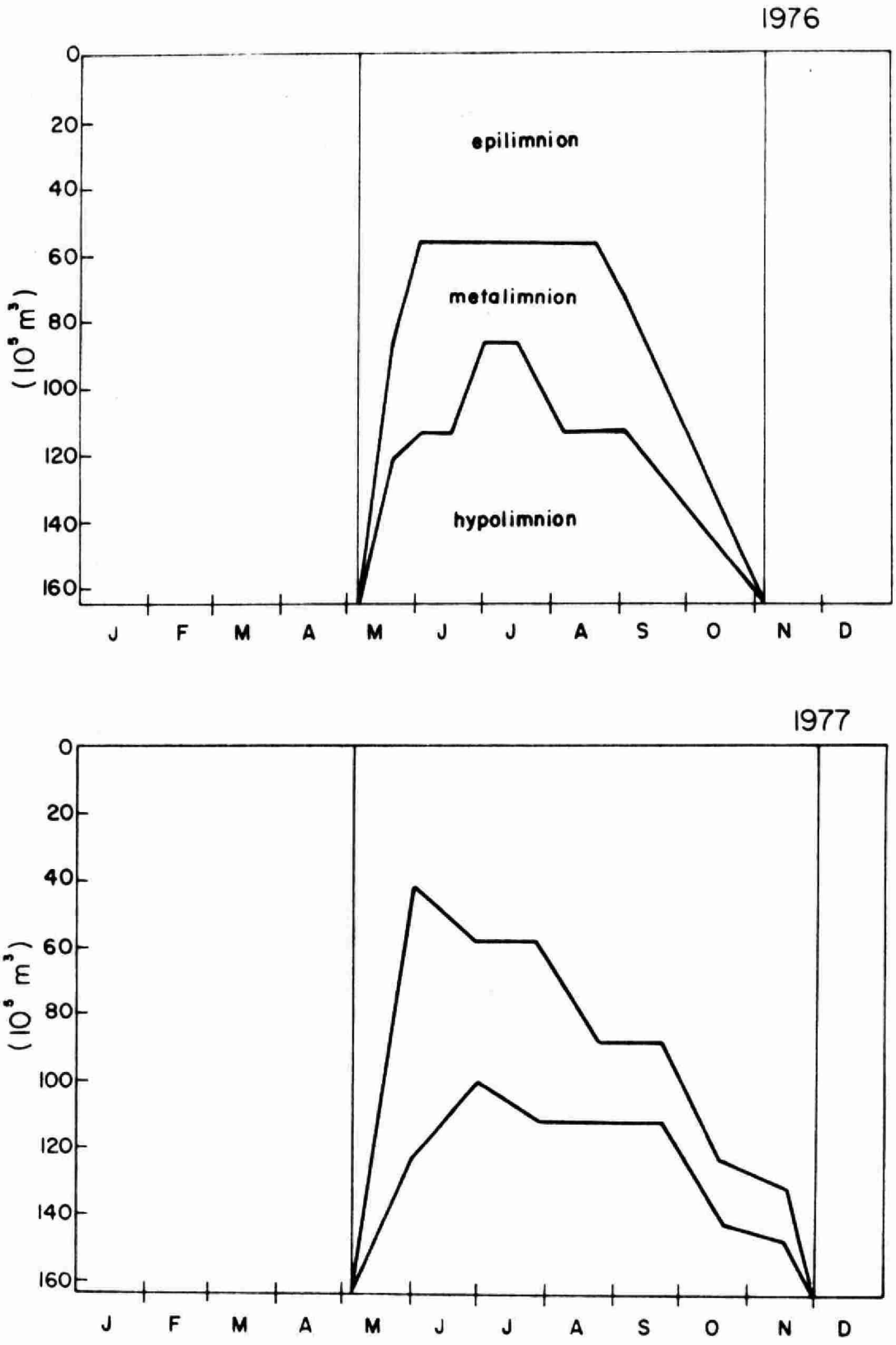


FIGURE 95

SOLITAIRE LAKE - DEPTH OF STRATA

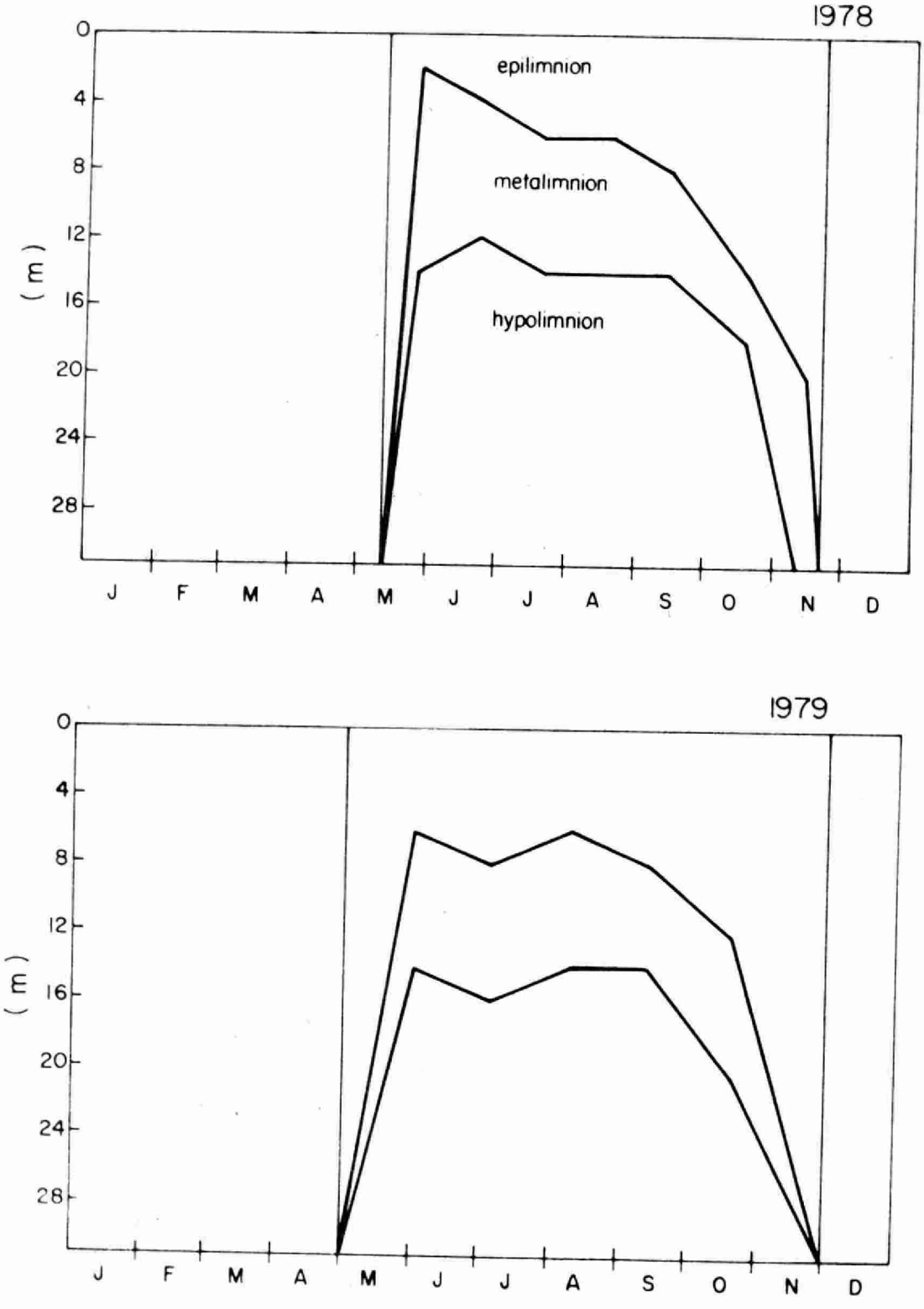


FIGURE 96

SOLITAIRE LAKE - VOLUME OF STRATA

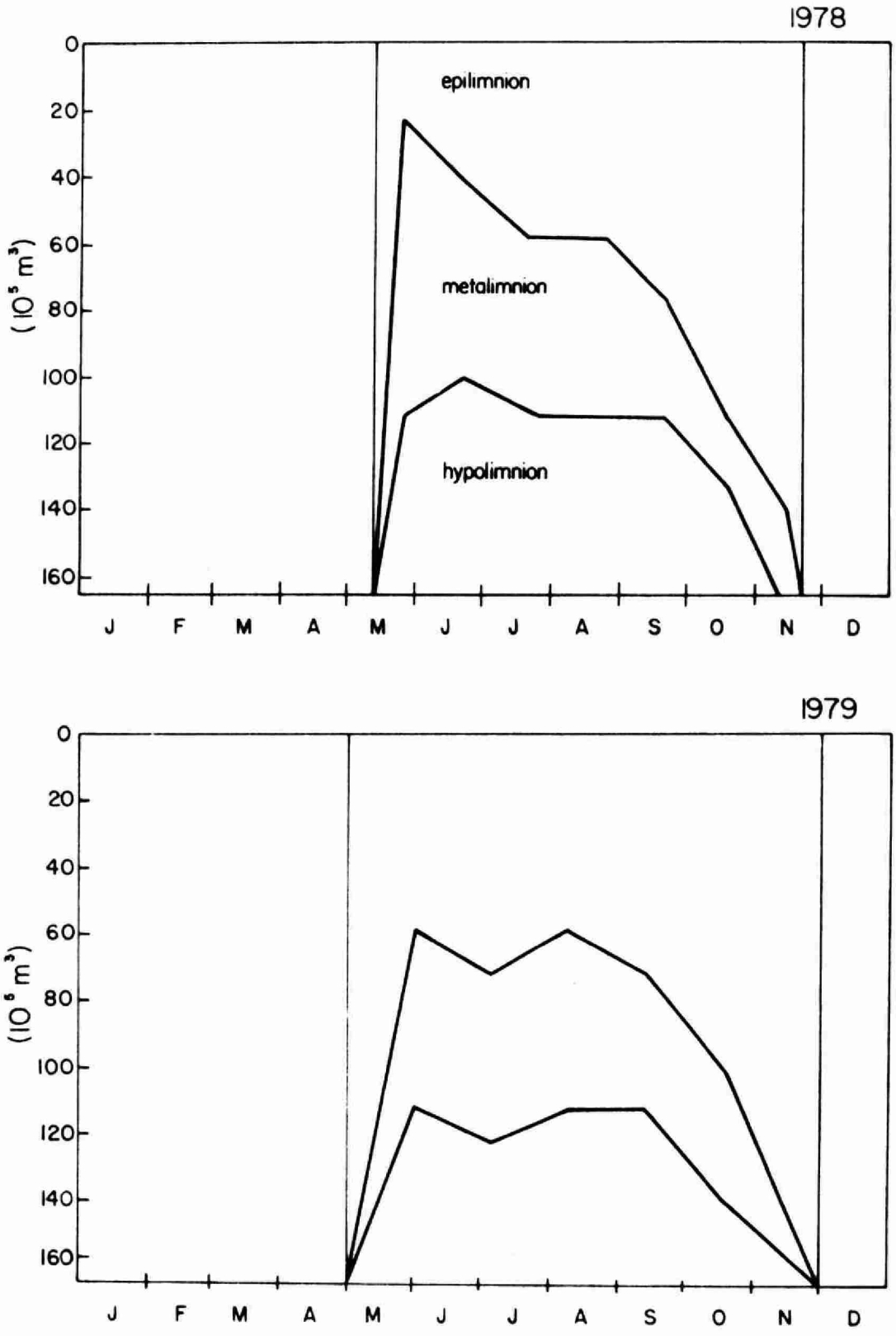


FIGURE 97

SOLITAIRE LAKE - DEPTH OF STRATA

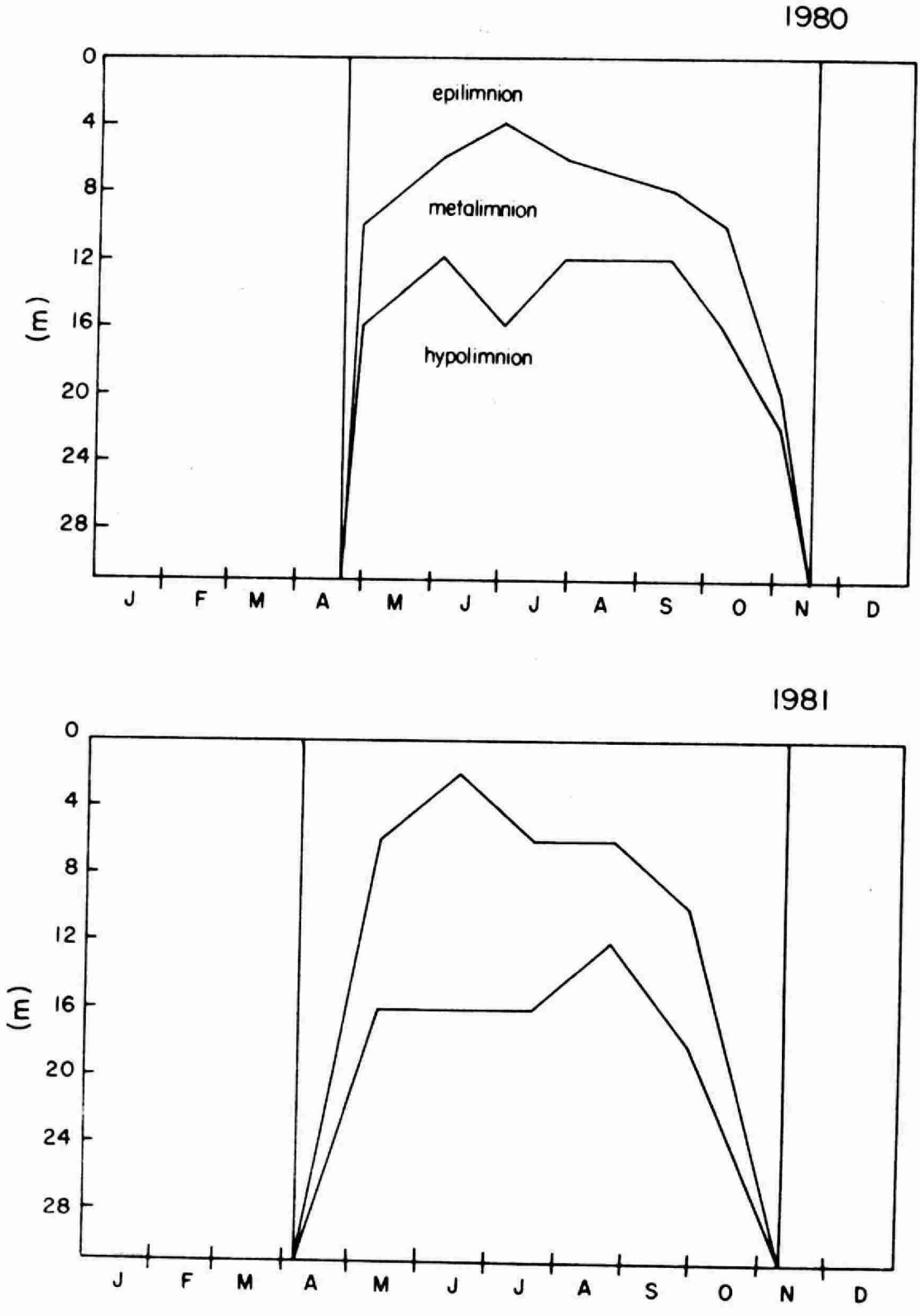


FIGURE 98

SOLITAIRE LAKE - VOLUME OF STRATA

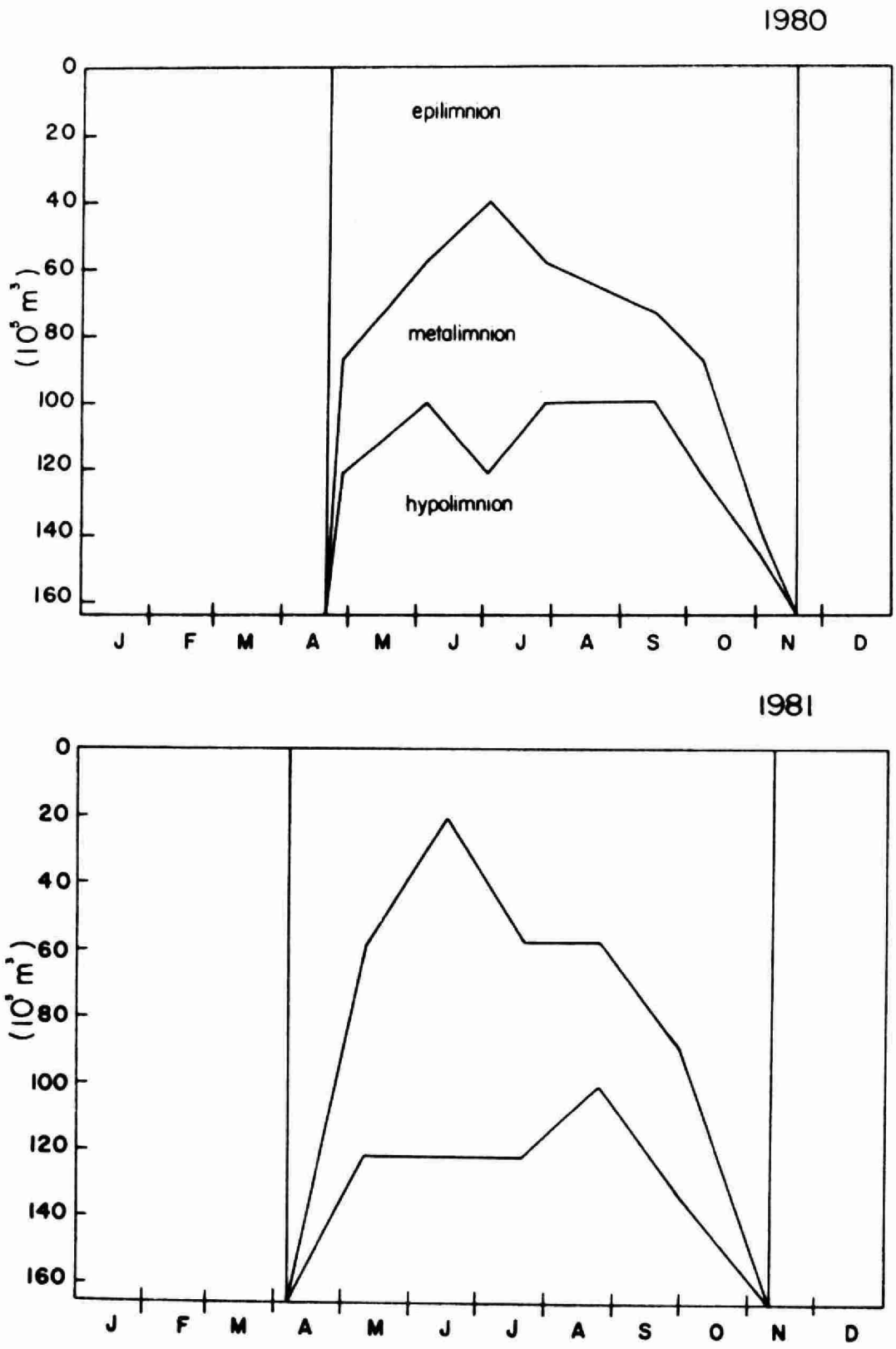
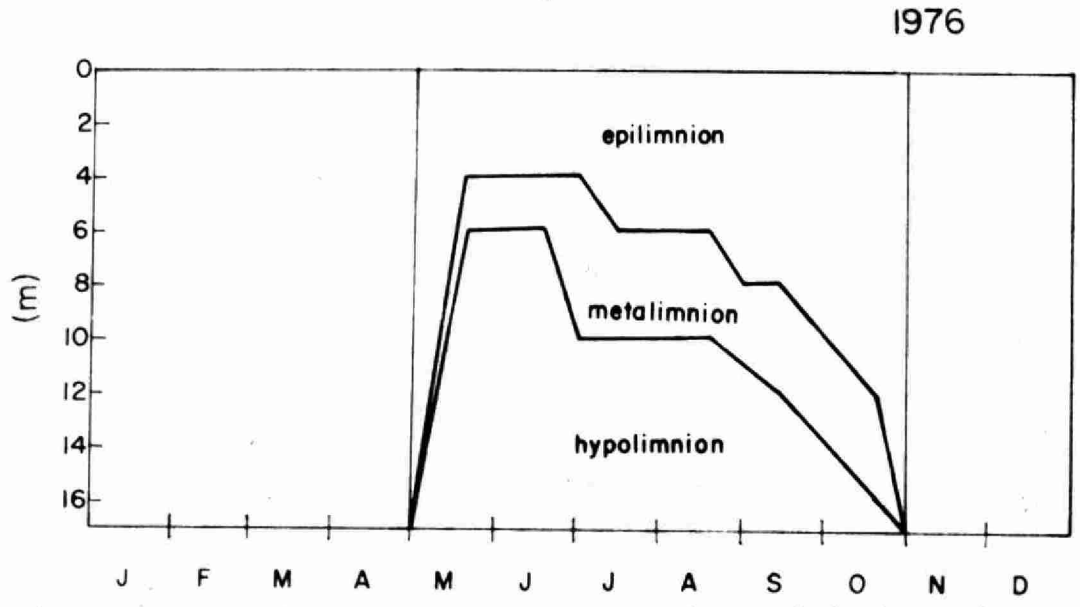


FIGURE 99

WALKER LAKE - DEPTH OF STRATA



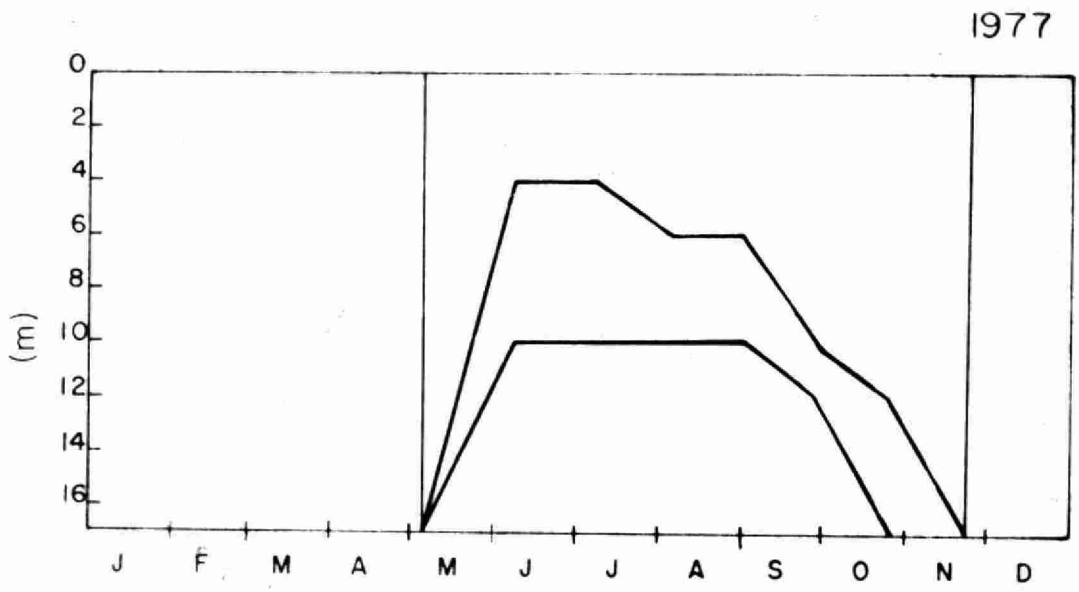
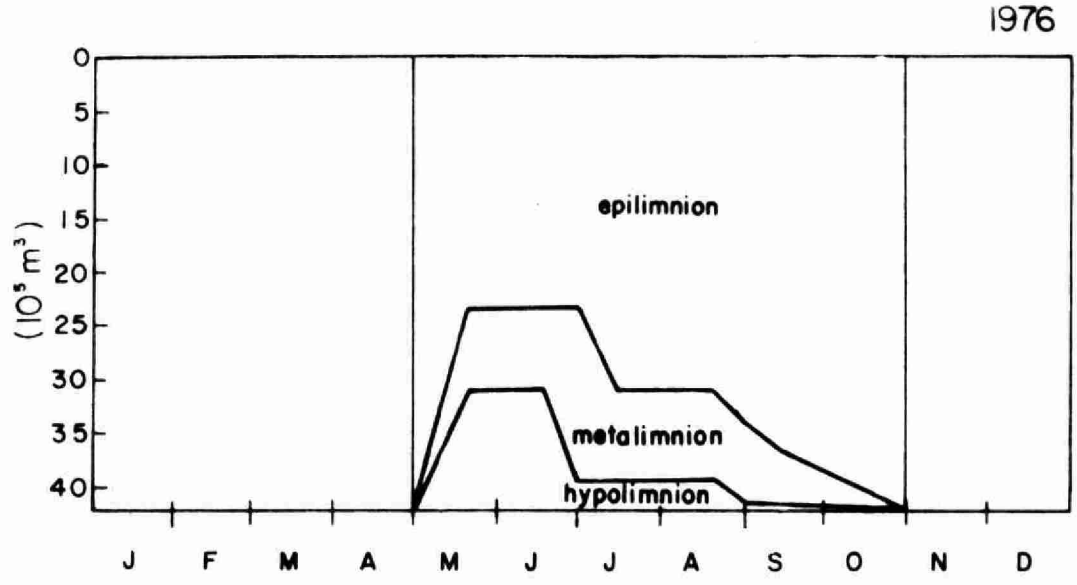


FIGURE 100

WALKER LAKE - VOLUME OF STRATA



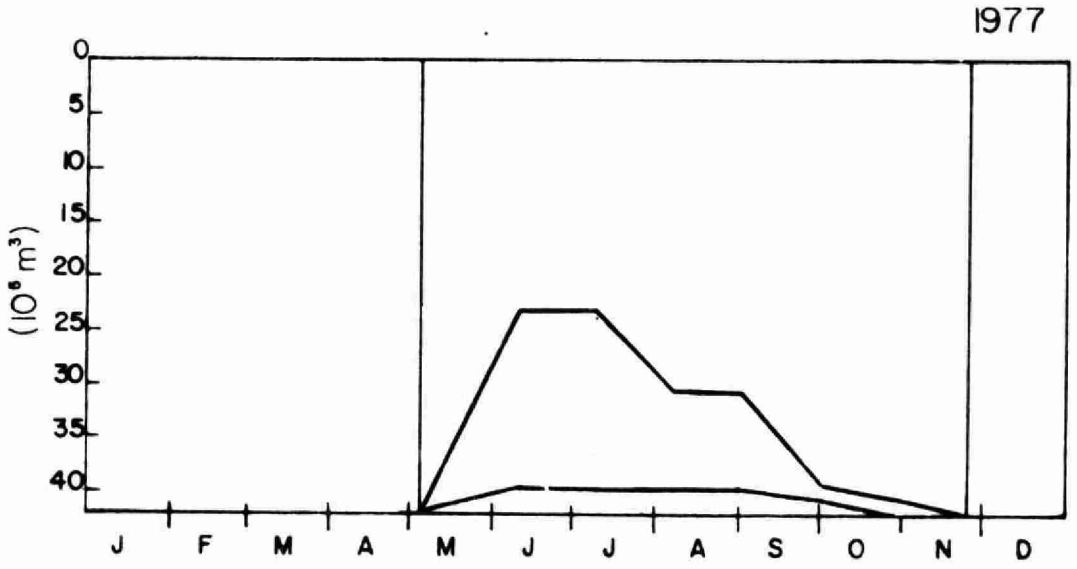
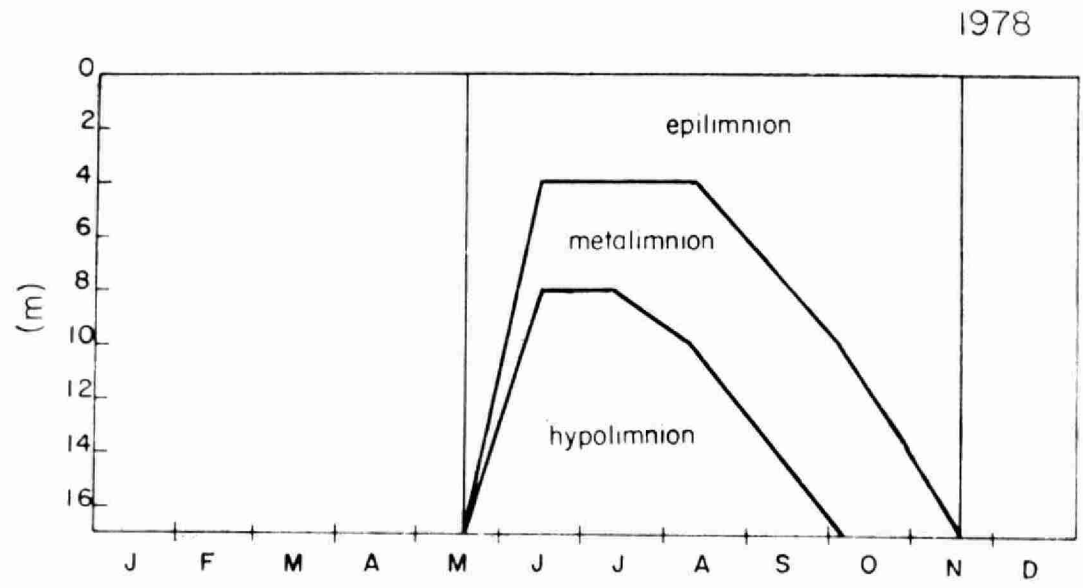


FIGURE 101

WALKER LAKE - DEPTH OF STRATA



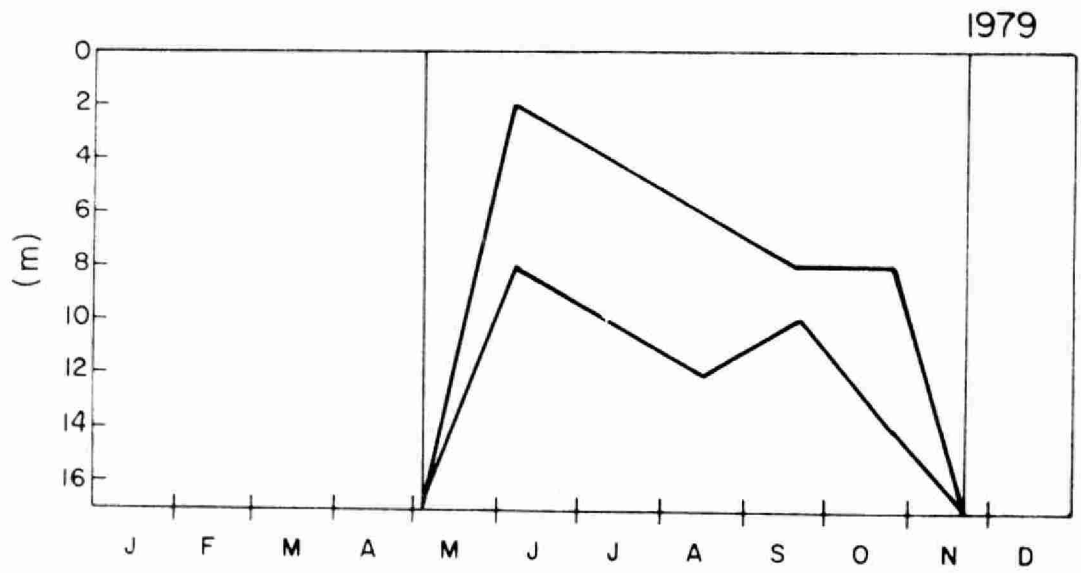
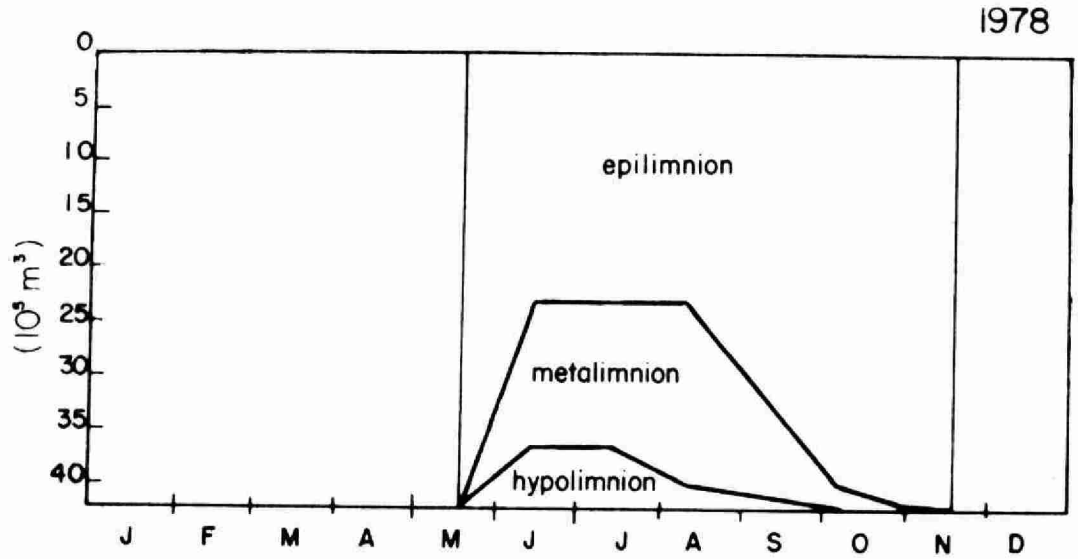


FIGURE 102

WALKER LAKE - VOLUME OF STRATA



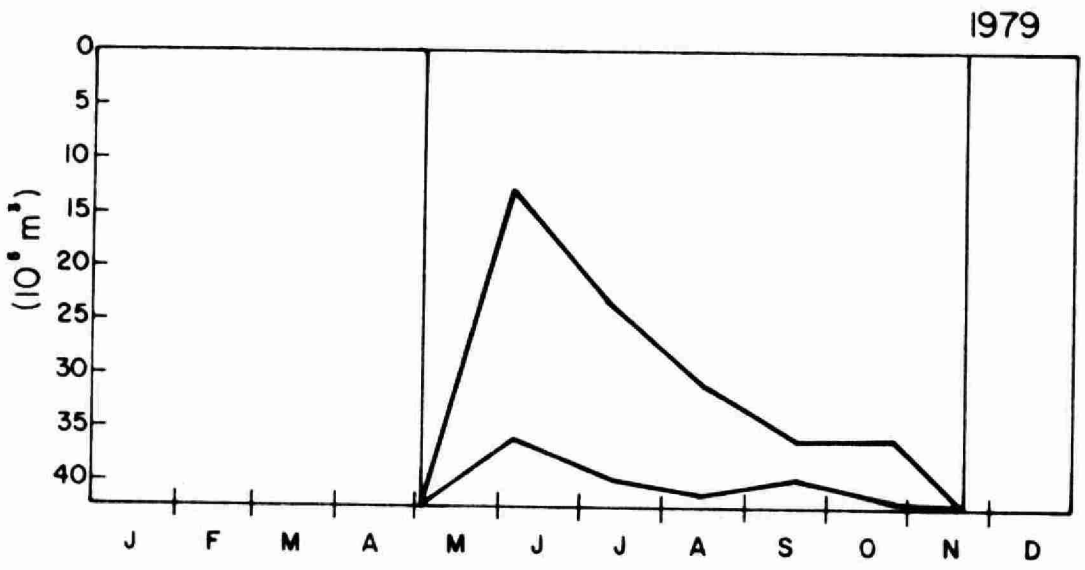


FIGURE 103

WALKER LAKE - DEPTH OF STRATA

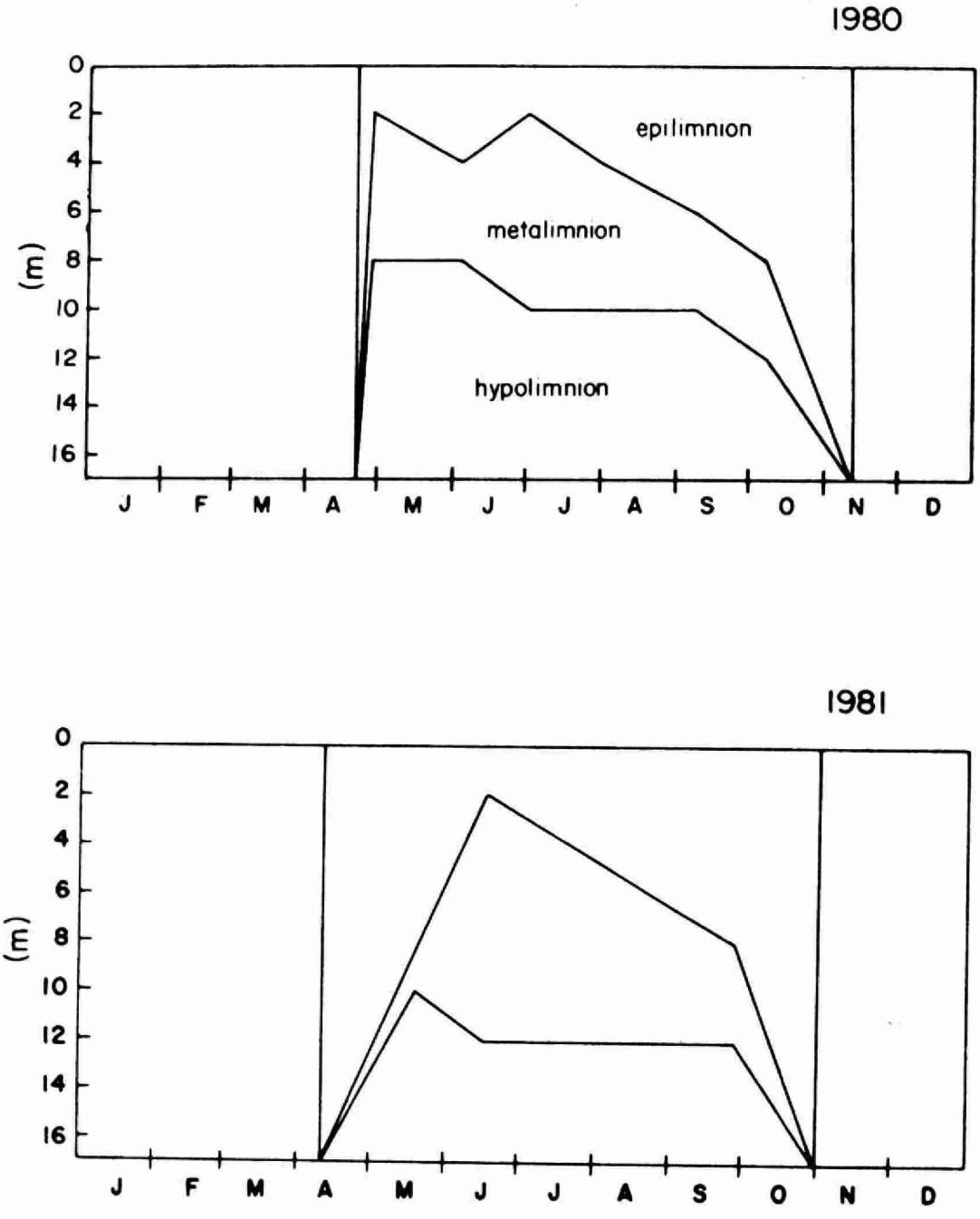


FIGURE 104

WALKER LAKE - VOLUME OF STRATA

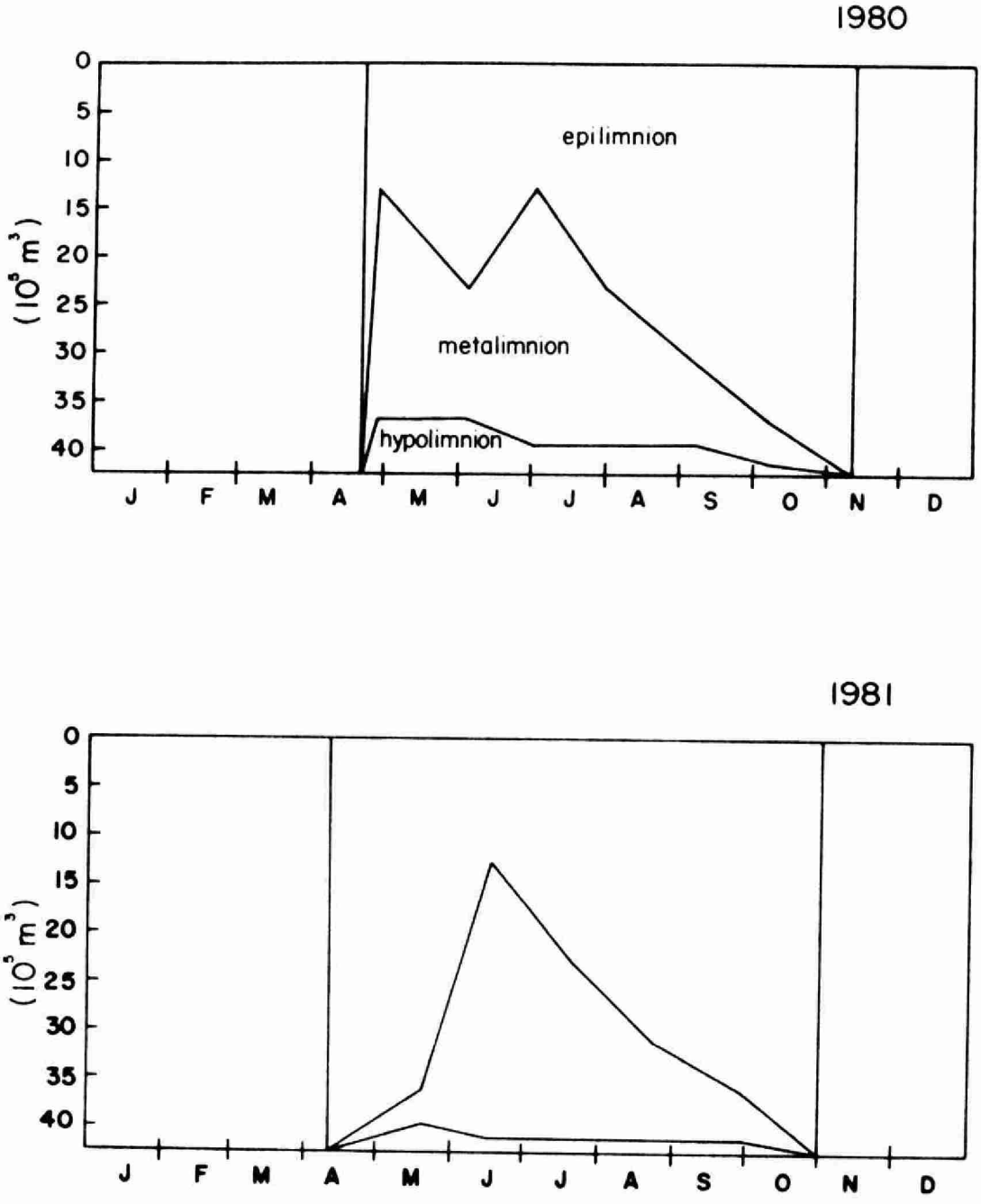
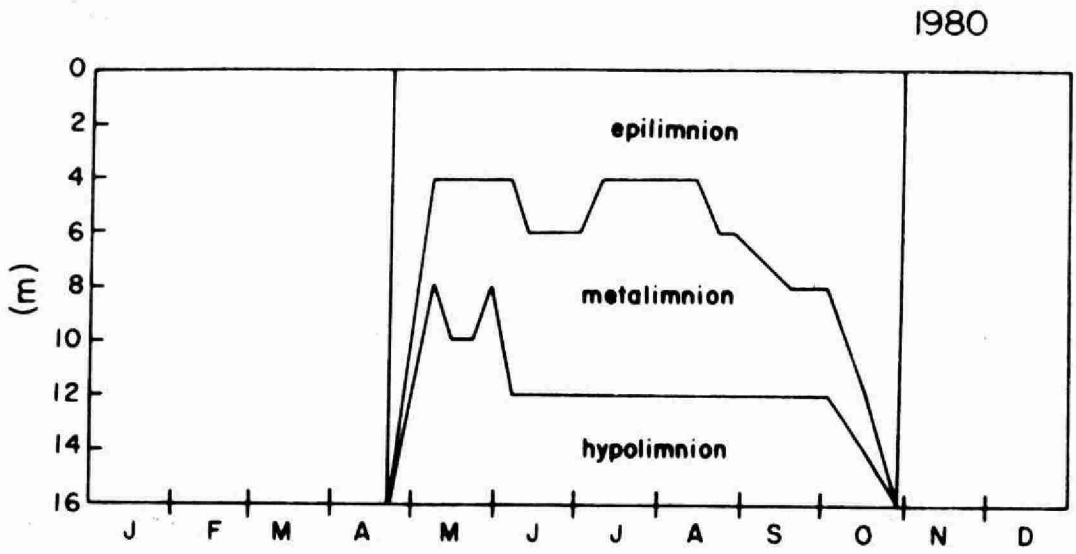


FIGURE 105

PLASTIC LAKE - DEPTH OF STRATA



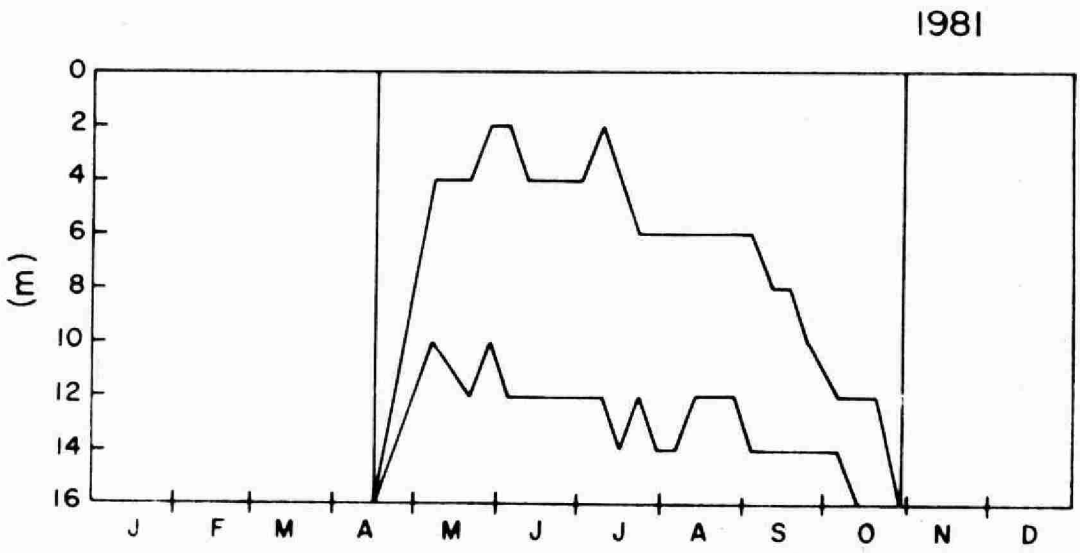


FIGURE 106

PLASTIC LAKE - VOLUME OF STRATA

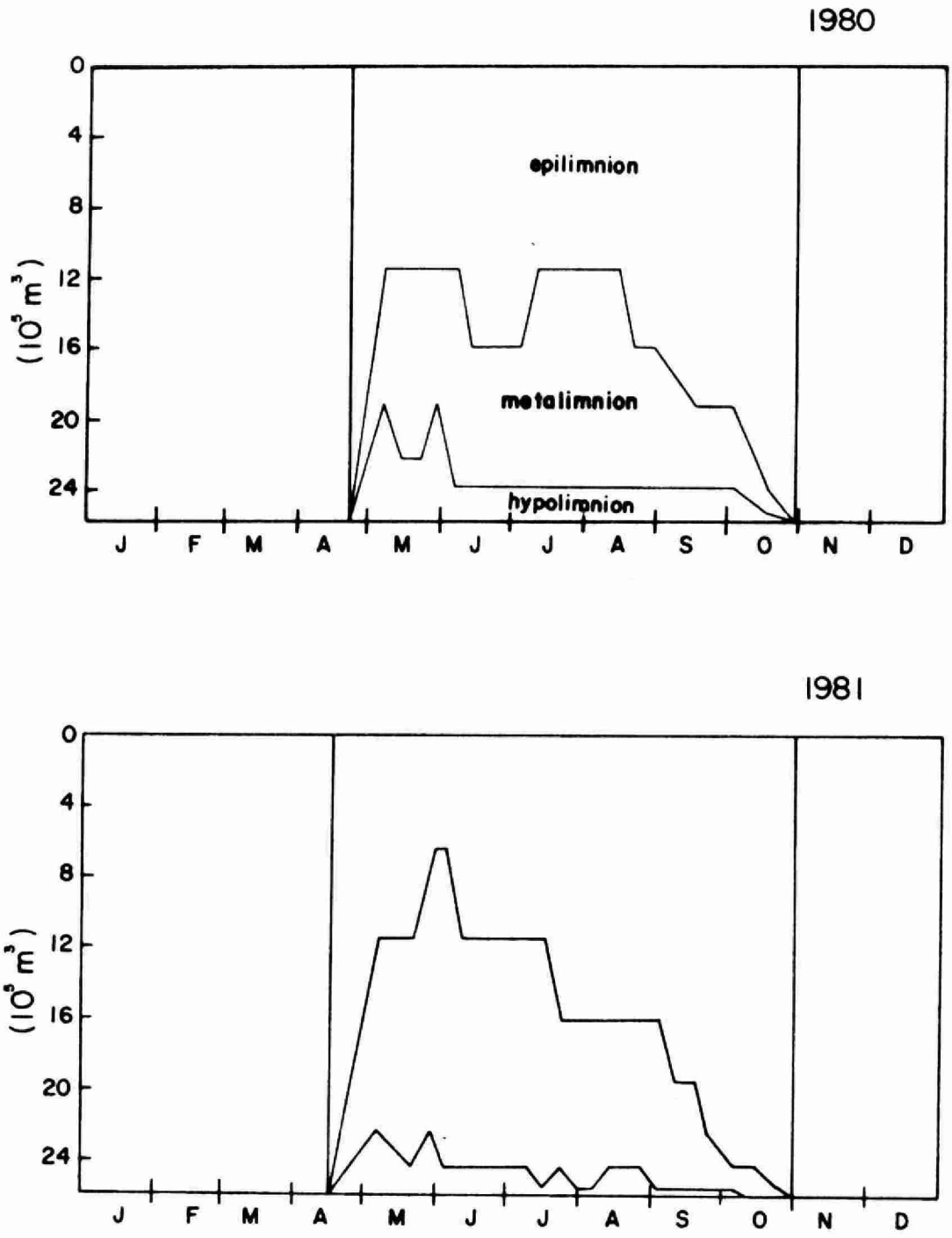


FIGURE 107

PLASTIC LAKE - DEPTH OF STRATA

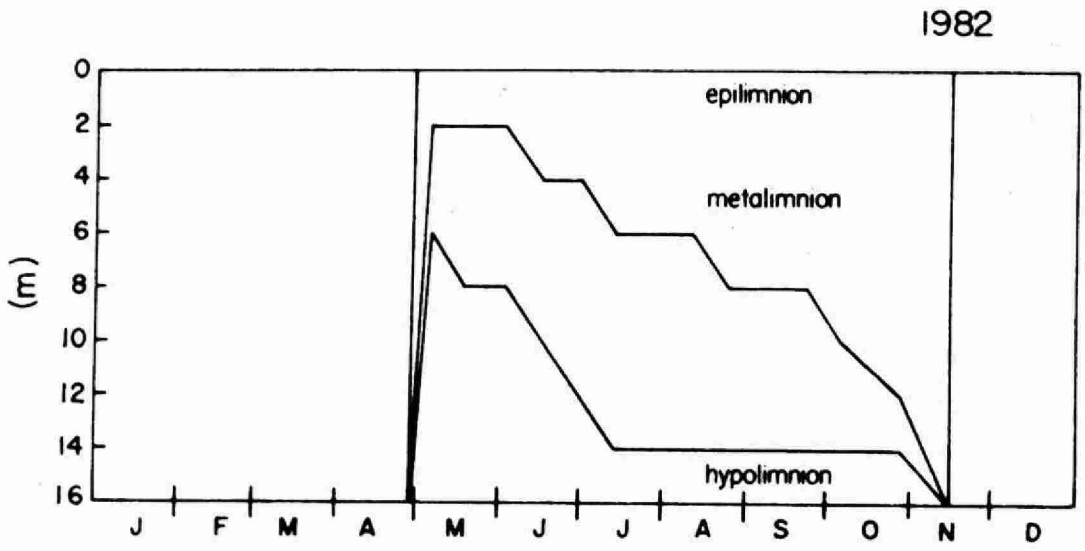
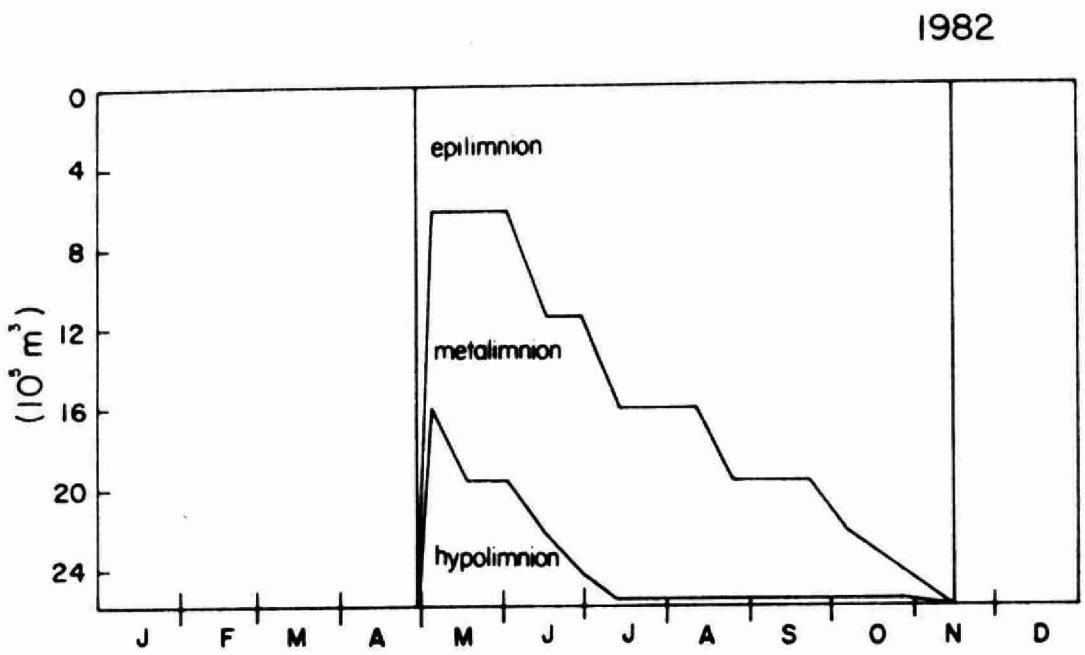


FIGURE 108

PLASTIC LAKE - VOLUME OF STRATA



	DATE DUE		

MOE/MUS/DEP/ANVN
Girard, R.
Depth and volume of
strata in the anvn
c.1 a aa

(9476)
MOE/MUS/DEP/ANVN